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This report consists of five separate parts which bear on the problem of vocational-technical education in the county school district. Part One deals with an analysis of dropouts from the schools of the county during the years of 1960 through 1966. Questionnaires were sent to dropouts, graduates, and parents of both groups. Part Two deals with the vocational and professional interests of currently enrolled students as determined by an instrument devised by the Research Coordinating Unit. Part Three consists of an analysis of the vocational-technical education courses that were offered during 1967 by the county school district in the junior highs, high schools, and adult education. Part Four is an analysis of the employment situation in the county and the eleven western states. Part Five provides a discussion of the on-going programs of vocational education for the county and a series of recommendations directed toward strengthening the programs and providing a more meaningful education experience. (MM)

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A STUDY OF VOCATIONAL - TECHNICAL EDUCATION IN THE WASHOE COUNTY SCHOOL DISTRICT

Research Coordinating Unit

RCU

Research and Educational Planning Center
College of Education, University of Nevada
Reno, Nevada

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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A STUDY OF VOCATIONAL-TECHNICAL EDUCATION IN THE WASHOE COUNTY, NEVADA, SCHOOL DISTRICT.

3 Nevada occupational Research Coordinating Unit, Reno.
College of Education
University of Nevada
Reno, Nevada

J. Clark Davis, Director

1968

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This project, begun in November, 1966, has required the larger part of two years to complete. It is the product of the work and cooperation of many people, not all of whom can be adequately acknowledged on this page. Certainly, Mr. Marvin Picollo, Washoe County School Superintendent and his Director of Research, Mr. George Brighton, must be credited with making the entire undertaking possible by providing a great amount of data concerning the schools, their pupils and programs. Mr. James Eardley gave unstintingly both of his time and his close knowledge of vocational-technical programs, thereby bringing an expertise to the team of researchers to which none of the others could lay claim.

Dr. Robert Whittemore of the University of Nevada devised and standardized an instrument for assessing vocational interests of students which formed the basis for Part II of the report. This instrument not only provided a means of gaining insight into the emerging vocational attitudes of current students, but holds out promise of continued usefulness with many future students as well.

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Finally, special thanks go to the hundreds of past and present students of the Washoe County Schools and to their parents all of whom shared their thoughts and attitudes with the research team through the unexciting requirement of completing lengthy questionnaires.

With the help of all of the persons mentioned above, the members of the research team hope that they have assembled information of special relevance to the Washoe County Schools which will prove to be of value both now and in the future.

Robert McQueen, Ph.D.
University of Nevada
Project Director
July 15, 1968

TABLE OF CONTENTS

Page

ACKNOWLEDGMENTS . . . iii

LIST OF TABLES . . . vii

LIST OF CHARTS . . . xi

INTRODUCTION . . . 1

PART I

WASHOE COUNTY VOCATIONAL-TECHNICAL STUDY CONDUCTED BY THE WASHOE COUNTY SCHOOL DISTRICT RESEARCH DEPARTMENT AND THE RESEARCH COORDINATING UNIT . . . 3
- Analysis of Dropouts . . . 3
  - Definition of a Dropout . . . 3
- Questionnaires to Dropouts and Graduates . . . 20
- Questionnaires to Parents of Graduates and Dropouts . . . 49

PART II

THE ATTITUDES OF WASHOE COUNTY SCHOOL DISTRICT STUDENTS TOWARD VOCATIONAL-TECHNICAL EDUCATION . . . 65

- Summary . . . 85

PART III

WASHOE COUNTY SCHOOL DISTRICT VOCATIONAL-TECHNICAL COURSE OFFERINGS - SEPTEMBER 1967 . . . 87
- Junior High Schools . . . 87
  - Grade 7 . . . 87
  - Grade 8 . . . 87
  - Grade 9 . . . 88
- Senior High Schools . . . 89
  - Sparks High School . . . 89
    - Business and Commercial . . . 89
    - Home Economics . . . 91
    - Industrial Arts . . . 93
  - Reno High School . . . 96
    - Business . . . 96
    - Homemaking . . . 99
    - Industrial Arts . . . 101
  - Wooster High School . . . 107
    - Business . . . 107
    - Home Economics . . . 116
    - Industrial Arts . . . 117
- Adult Education . . . 121
  - Apprenticeship Programs . . . 121
  - Licensed Practical Nursing Program . . . 124
  - Health Occupations Program . . . 124

Page

Manpower Development Training Program. 126
Technical Education. 127
Office Occupations 129
Distributive Education 131
Trades and Industry. 132
Homemaking 133

PART IV

EMPLOYMENT OPPORTUNITIES FOR WASHOE COUNTY YOUTH . 134

PART V

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS. . . . 141

Discussion 141
Conclusion 142
Vocational-Technical Education and the Holding Power of the Schools 142
The Role of Vocational-Technical Education in the High School. 143
Recommendations. 145
Recommendation 1: Cultivating Positive Attitudes Toward Work 145
Recommendation 2: Occupational Testing and Guidance Center. 149
Recommendation 3: On-the-Job Orientation of Counselors. 150
Recommendation 4: The Job-Cluster Concept . . 151
Recommendation 5: Advisory Committees for Vocational-Technical Programs. 153
Recommendation 6: Expanding the Use of Present Vocational-Technical Facilities. . . 154

BIBLIOGRAPHY 157

APPENDIX
A Form Sent to Dropouts and to Students Who Graduated 158
B Form Sent to Parents of Dropouts and to Parents of Students Who Graduated 164
C Student Career Interest Form. 168
D Occupational Categories to Accompany Student Career Interest Form. 171
E Occupations of Fathers and Mothers of Washoe County Students, Grades 7-12, Reported Spring, 1967. 175
F Vocational-Technical Survey for Businesses. . . 177
G Vocational-Technical Survey for Unions. 181

LIST OF TABLES

Table Page

1. Dropouts By Grade, All Junior and Senior High Schools 1961-1966 5
2. Dropouts By Age, All Junior and Senior High Schools 1961-1966 6
3. Dropouts By Sex, Reno, Sparks, Wooster High Schools 1961-1966 7
4. Proportion of Dropouts By Sex, All Junior and Senior High Schools 1961-1966 7
5. Dropouts By School, 1613 Dropouts 1961-1966 . . 9
6. Dropouts by School Years, Reno, Sparks, and Wooster High Schools, 1961 through 1966 10
7. Dropouts by School Years, All Junior High Schools, 1961 through 1966. 11
8. Dropouts by School Years, Reno High School, 1961 through 1966 12
9. Dropouts by School Years, Sparks High School, 1961 through 1966 13
10. Dropouts by School Years, Wooster High School, 1963 through 1966 13
11. Withdrawal Category for Dropouts, All Junior and Senior High Schools 1961-1966 14
12. Reason Stated for Dropping Out, All Junior and Senior High Schools 1961-1966 16
13. Length of Nevada Residence of Dropouts, All Junior and Senior High Schools 1961-1966. . . . 17
14. Achievement in School By Dropouts, All Junior and Senior High Schools 1961-1966 19
15. Mail Summary of Questionnaires to Dropouts. . . 21
16. Mail Summary of Questionnaires to Parents of Dropouts. 22
17. Mail Summary of Questionnaires to Graduates . . 24
18. Mail Summary of Questionnaires to Parents of Graduates 25
19. Questionnaire Responses: Item 5, Present Occupation. 27

Table Page

20. Questionnaire Responses: Item 10, Full-Time Jobs Held Since Leaving High School 29

21. Questionnaire Responses: Item 12, Average Weekly Salary of Graduates. 31

22. Questionnaire Responses: Item 12, Average Weekly Salary of Dropouts 32

23. Questionnaire Responses: Item 13, Is Your Present Work What You Thought You Would Do While in High School? 34

24. Questionnaire Responses: Item 8, Was The Decision to Drop Out a Good One?. 35

25. Questionnaire Responses: Item 9, Would You (Dropouts) Advise Someone Today To Drop Out?. . 36

26. Questionnaire Responses: Item 6, Who Helped Most in Choosing A Life Plan? 38

27. Questionnaire Responses: Item 19, Could the High School Have Helped Develop Another Skill That You Could Use Now? 40

28. Questionnaire Responses: Item 20, Could the High School Have Offered Another Course That Would Help Now? 42

29. Questionnaire Responses: Item 22, Would You (Dropouts) Have Transferred To A Vocational-Technical School? 44

30. Questionnaire Responses: Item 23, Would You Now Enroll In A Vocational-Technical School?. . 46

31. Questionnaire Responses: Item 23, Reasons Why Graduates and Dropouts Would Not Enroll in Vocational-Technical School Now 48

32. Questionnaire Responses: Item 5, At The Time Your Child Quit School, Did You Think It Was A Good Decision?. 50

33. Questionnaire Responses: Item 6, Now Do You Think Your Child's Quitting School Was A Good Decision? 50

34. Questionnaire Responses, Parents of Graduates: Item 8, Was the Emphasis on College About Right When Your Child Was in High School? . . . 52

Table Page

35. Questionnaire Responses, Parents of Dropouts: Item 8, Was the Emphasis on College About Right When Your Child Was in High School? . . . 52

36. Questionnaire Responses, Parents of Graduates: Item 9 Did You Feel Attention to Vocational-Technical Training Was About Right When Your Child Was in High School? 54

37. Questionnaire Responses, Parents of Dropouts: Item 9, Did you Feel Attention to Vocational-Technical Training Was About Right When Your Child Was in High School? 54

38. Questionnaire Responses, Parents of Graduates: Item 10, Would Your Child Have Gained More If He Had Attended A Vocational-Technical High School? 56

39. Questionnaire Responses, Parents of Dropouts: Item 10, Would Your Child Have Gained More If He Had Attended A Vocational-Technical High School? 56

40. Questionnaire Responses, Parents of Graduates: Item 11, If You Could Have At The Time, Would You Have Sent Your Child To A Technical Training School?. 58

41. Questionnaire Responses, Parents of Dropouts: Item 11, If You Could Have At The Time, Would You Have Sent Your Child To A Technical Training School?. 58

42. Questionnaire Responses, Parents of Graduates: Item 12, If You Were Choosing Today, Would You Have Sent Your Child To A Technical High School? 60

43. Questionnaire Responses, Parents of Dropouts: Item 12, If You Were Choosing Today, Would You Have Sent Your Child To A Technical High School? 60

44. Questionnaire Responses, Parents of Graduates: Item 13, Do You Think A Complete Vocational-Technical Program Can Best Be Presented In A Separate High School? 62

45. Questionnaire Responses, Parents of Dropouts: Item 13, Do You Think A Complete Vocational-Technical Program Can Best Be Presented In A Separate High School? 62

Table Page

46. Questionnaire Responses, Parents of Graduates: Item 15, Knowing Your Child's Present Earning Capacity, Do You Believe It Would Have Been Increased If He Had Spent High School Years In A Vocational-Technical High School? 64

47. Questionnaire Responses, Parents of Dropouts: Item 15, Knowing Your Child's Present Earning Capacity, Do You Believe It Would Have Been Increased If He Had Spent High School Years In A Vocational-Technical High School? 64

48. Number of Students In Each School Class By Sex 67

49. Percentage of Students Who Made Career Choice By Schools 69

50. Grade In Which Career Choice Was Made, By Student's Current School. 71

51. Considering the Grade Career Choice Was Made In, Who Helped In Career Choice 73

52. Who Helped In Making Career Choice By Student's Sex 74

53. Number of Responses To After School Plans . . . 76

54. Students' After School Plans By Sex 78

55. The Fifteen Occupations of Fathers With the Highest Incidence of Workers. 80

56. The Fifteen Occupations of Mothers With the Highest Incidence of Workers. 81

57. Correlation Between Parents' Jobs and Students' Future Job. 83

58. Response to Question 11: Would You Go To A Local or Regional Vocational-Technical School?. 84

59. Washoe County 1966 Employment and Employer Projections to 1970 and 1975. 137

60. State of Nevada 1966 Employment and Employer Projections to 1970 and 1975. 139

LIST OF CHARTS

Chart Page

1. A Model For An Integrated Occupational Education Program (Michigan Department of Education). .147

INTRODUCTION

This report consists of five separate parts, four of these bearing in a general way on the problem of vocational-technical education in the Washoe County School District, and the fifth part consisting of a series of discussions, conclusions and recommendations. Part I consists of an analysis of the students who have withdrawn from the Washoe County schools during the calendar years of 1960 through 1966. This part of the study also includes information drawn from the parents of these dropout students as well as from students who graduated from Washoe County high schools but who were enrolled during the same period of time as were the dropout students. Part II of the study deals with the vocational and professional interests of currently enrolled students. These students were administered an instrument devised by the Research Coordinating Unit and aimed at assessing the interests that these students have in the work-a-day world. Part III of the study consists of an analysis of the vocational-technical education courses that are offered by the Washoe County School District. This portion of the report presents a compilation of all such courses that are taught at the junior and senior high school levels. Part IV consists of an analysis of the work and/or employment situation in Washoe County, the State of Nevada, and more broadly, the eleven Western states. This section of the report recognizes that young workers enter the labor market either with usable skills or recognizable work deficiencies. Further, that the world of employment has unique demands and requirements which ideally should be communicated back to those agencies responsible for the preparation and training of each new group of workers. This part also seeks to provide current information relative to that object. Part V provides a discussion of the on-going programs of vocational-technical education in Washoe County schools as well as a series of positive recommendations directed toward strengthening the vocational-technical program and providing a more meaningful educational experience for Washoe County youth.

PART I

WASHOE COUNTY VOCATIONAL-TECHNICAL EDUCATION STUDY
CONDUCTED BY THE WASHOE COUNTY SCHOOL DISTRICT RESEARCH DEPARTMENT AND THE RESEARCH COORDINATING UNIT

Analysis of Dropouts

This portion of the report contains several sub-sections each with different types of information. Part I consists of an analysis of the students who have withdrawn from the Washoe County schools during the calendar years of 1960 through 1966. It will also include the results of a questionnaire which was mailed to all such dropouts and, as a companion set of data, a selected sample of high school graduates of the Washoe County schools who responded to a similar questionnaire. Finally, a questionnaire was sent to the parents of both dropouts and graduating students as a means of gaining the sentiments and attitudes of school patrons as they touch on the general problem of school effectiveness and vocational-technical education.

Definition of a Dropout

For the purposes of this study, the NEA definition of a dropout was used:

> A dropout is a pupil who leaves a school, for any reason except death, before graduation or completion of a program of studies and without transferring to another school.
>
> The term dropout is used most often to designate those elementary and secondary school pupils who have been in membership during the regular school term and who withdraw from membership before graduating from secondary school (grade 12) or before completing their program of studies. Such an individual is considered a dropout whether his dropping out occurs before or

> after he has passed the compulsory school attendance age, and, where applicable, whether or not he has completed a minimum required amount of school work.*

The school district adopted a withdrawal form upon which information from the calendar years 1961 through 1966 was recorded as a result of searching school files. This formed the basis of analysis of student dropouts.

The number of dropouts shown in this study is less than the total number of dropouts which might have occurred in this school district because no accounting has been made of students who were in attendance at the close of an academic year but failed to return at the start of the following academic year. Since the purpose of this phase of the study is to analyze conditions surrounding dropouts, and not a statistical resume of dropouts, per se, this sample of the dropout population will prove adequate.

Table 1 reflects the number and per cent of dropouts by grade level. It can be seen here that the academic level during which students most frequently withdraw from school is the tenth grade. Fewer students drop out during the eleventh grade and fewer still during their senior year. Table 1 also shows that a very small proportion of ninth grade students withdrew. While not shown in this table, there were records of 15 dropouts in the eighth grade and four in the seventh grade.

---

*NEA Research Bulletin, "School Drop-Outs," April 1963, p. 2.

TABLE 1

DROPOUTS BY GRADE
ALL JUNIOR AND SENIOR HIGH SCHOOLS 1961-1966

GRADE	COMBINED ENROLLMENT	DROPOUTS	PER CENT OF ENROLLMENT
12th	5,669	289	5.09
11th	6,589	486	7.37
10th	8,497	726	8.54
9th	9,090	93	1.02
TOTALS	29,845	1,594 *	5.34

*Not including 15 from grade eight and four from grade seven.

Table 2 shows dropouts by age of students. The ages 15 through 18 are the years during which withdrawal most frequently occurs. The single age showing both the largest number and the largest proportion of dropouts is 17 years. This, of course, is the age when students have completed the minimum school attendance required by law.

TABLE 2

DROPOUTS BY AGE
ALL JUNIOR AND SENIOR HIGH SCHOOLS 1961-1966

AGE	DROPOUTS	PER CENT OF DROPOUTS
10	1	0.06
11	0	0.00
12	1	0.06
13	5	0.31
14	13	0.80
15	134	8.30
16	477	29.57
17	639	39.61
18	261	16.18
19	61	3.78
20	11	0.68
21	9	0.55
22	1	0.06
TOTALS	1,613	99.96

Table 3 shows the distribution of dropouts by sex. It can be seen that very nearly twice as many males as females withdraw from school.

TABLE 3

DROPOUTS BY SEX
RENO, SPARKS, WOOSTER HIGH SCHOOLS 1961-1966

SEX	TOTAL ENROLLMENT	DROPOUTS	PER CENT OF TOTAL SEX ENROLLMENT
Male	10,569	997	9.4
Female	10,186	532	5.2
TOTALS	20,755	1,529	7.4

Table 4 is an alternate way of expressing the distribution of dropouts between the two sexes. Males constitute 65 per cent of the dropouts, while only 35 per cent of them are female students.

TABLE 4

PROPORTION OF DROPOUTS BY SEX
ALL JUNIOR AND SENIOR HIGH SCHOOLS 1961-1966

SEX	TOTAL DROPOUTS	PER CENT OF DROPOUTS
Male	1,047	65.0
Female	566	35.0
TOTALS	1,613	100.0

Table 5 details the dropouts for the period under study in all of the junior and senior high schools of Washoe County. It can be seen that altogether the junior high schools contribute a very small proportion of the total dropouts. Reno High School, as might be expected because it has had the largest average enrollment for a longer period of time, has the largest numbers of dropouts. Wooster High School was not in operation during part of the study period, and hence, would not have as many dropouts recorded for this overall block of time.

TABLE 5

DROPOUTS BY SCHOOL
1613 DROPOUTS 1961-1966

SCHOOL	TOTAL DROPOUTS	PER CENT OF DROPOUTS
Junior Highs		
Billinghurst	11	0.68
Clayton	1	0.06
Dilworth	4	0.24
Gerlach	0	0.00
Northside	2	0.12
Sparks	15	0.93
Swope	14	0.86
Traner	20	1.23
Vaughn	17	1.08
TOTALS	84	5.20
Senior Highs		
Reno	823	51.02
Sparks	358	22.19
Wooster	348	21.57
TOTALS	1,529	94.78
COMBINED TOTALS	1,613	99.98

Table 6 shows the total number of dropouts from the three senior high schools in Washoe County for the school years of 1960-61 through 1965-66. Also shown are the proportions of dropouts for each individual year. The proportion of dropouts range from a low of slightly more than five per cent to just under nine per cent for any one year, with an average rate of dropout of over six per cent per year.

TABLE 6

DROPOUTS BY SCHOOL YEARS
RENO, SPARKS, AND WOOSTER HIGH SCHOOLS
1961 THROUGH 1966

YEAR	TOTAL ENROLLMENT	DROPOUTS	PER CENT
1961	2,332	205	8.8
1962	2,710	171	6.3
1963	3,373	219	6.5
1964	3,954	207	5.2
1965	4,235	263	6.2
1966	4,151	265	6.4
TOTALS	20,755	1,330*	6.4

*199 high school dropouts for school years of 1959-60 and 1966-67 which were not reported in their entirety are included in other parts of the study but not included above because of their incompleteness.

Table 7 shows the total number of dropouts from the nine junior high schools in Washoe County for the years 1961 through 1966. Also shown are the proportions of dropouts for each individual year. The proportion of dropouts range from a low of slightly more than one-half of one per cent to just over one per cent for any one year, with an averate rate of dropout of approximately eight-tenths of one per cent per year.

TABLE 7

DROPOUTS BY SCHOOL YEARS
ALL JUNIOR HIGH SCHOOLS
1961 THROUGH 1966

YEAR	TOTAL ENROLLMENT	DROPOUTS	PER CENT
1961	1,252	10	0.8
1962	1,524	9	0.6
1963	1,506	12	0.8
1964	1,557	13	0.8
1965	1,661	10	0.6
1966	1,708	22	1.3
TOTALS	9,208	76 *	0.8

*Eight junior high dropouts for school years of 1959-60 and 1966-67 which were not reported in their entirety are included in other parts of the study but not included above because of their incompleteness.

Table 8 looks at the 1961 through 1966 dropouts recorded for Reno High School and the same information is presented in Table 9 for Sparks High School and Table 10 for Wooster High School. It should be recalled that Wooster High School was not operating during the years 1961-62, hence no entries are indicated for those years. Wooster High School began operations in 1963 with only the tenth and eleventh grades enrolled.

TABLE 8

DROPOUTS BY SCHOOL YEARS
RENO HIGH SCHOOL
1961 THROUGH 1966

YEAR	TOTAL ENROLLMENT	DROPOUTS	PER CENT
1961	1,660	158	9.5
1962	1,917	135	7.0
1963	1,471	126	8.6
1964	1,397	85	6.1
1965	1,511	102	6.8
1966	1,486	97	6.5
TOTALS	9,442	703*	7.4

*120 high school dropouts for schools years of 1959-60 and 1966-67 which were not reported in their entirety are included in other parts of the study but not included above because of their incompleteness.

TABLE 9

DROPOUTS BY SCHOOL YEARS
SPARKS HIGH SCHOOL
1961 THROUGH 1966

YEAR	TOTAL ENROLLMENT	DROPOUTS	PER CENT
1961	672	47	7.0
1962	793	36	4.5
1963	981	50	5.1
1964	1,099	51	4.6
1965	1,179	74	6.3
1966	1,182	78	6.6
TOTALS	5,906	336 *	5.7

*22 high school dropouts for school years of 1959-60 and 1966-67 which were not reported in their entirety are included in other parts of the study but not included above because of their incompleteness.

TABLE 10

DROPOUTS BY SCHOOL YEARS
WOOSTER HIGH SCHOOL
1963 THROUGH 1966

YEAR	TOTAL ENROLLMENT	DROPOUTS	PER CENT
1963	921	43	4.7
1964	1,458	71	4.9
1965	1,545	87	5.6
1966	1,483	90	6.1
TOTALS	5,407	291 *	5.4

*57 high school dropouts for school year 1966-67 which were not reported in their entirety are included in other parts of the study but not included above because of their incompleteness.

The next few tables reflect the summary of information which is taken from the official school district dropout card. Table 11 reports the category for dropouts as established on this card. It can be seen that 34 per cent of all the dropouts were recorded as having withdrawn from school simply because they reached the compulsory school attendance age. What other compelling motives might have been at work are not reflected in this table for this group. Nearly 11 per cent of the students withdrew from school after having been issued a work permit, which possibly suggests that the income that they were to gain through working was needed for the support of their families or the student's own need for money became acute. The third category in which some 55 per cent of the dropouts were found simply lists the students as having withdrawn from school because of death, discharge, or some other rather unspecified reason. The latter category appears to have been checked quite often when other more specific information was not obtainable.

TABLE 11

WITHDRAWAL CATEGORY FOR DROPOUTS
ALL JUNIOR AND SENIOR HIGH SCHOOLS 1961-1966

WITHDRAWAL CATEGORY	NUMBER	PER CENT
After Reaching Compulsory School Age	544	33.73
Issued Work Permit	172	10.66
Because of Death, Discharge	897	55.61
TOTALS	1,613	100.00

Table 12 records the number of dropouts who gave a reason provided on the withdrawal form for leaving school. In assessing this data it should first be noted that over 38 per cent of them chose not to give any reason whatever. The validity of the balance of this information is, of course, highly questionable. A student may withdraw from school for a reason entirely different from that which he checks on a form provided him by school officials. For example, Table 12 indicates that less than 1/5 of one per cent of the persons withdrawing from school did so because of an unmarried pregnancy. The total number in this category, in fact, for the entire six years is listed as only three. This, of course, is known to be grossly inaccurate, yet the young women who have withdrawn for this reason have elected either to give no reason at all or have offered some other explanation for quitting school. It is clear, however, that a sizable proportion of the dropouts leave school and go directly into military service, a figure less likely to be inaccurate. A still larger proportion of students withdraw from school because, as they frankly admit, they have lost all interest in it. This lack of interest may extend to the indifferent manner in which the student completes a withdrawal card.

TABLE 12

REASON STATED FOR DROPPING OUT
ALL JUNIOR AND SENIOR HIGH SCHOOLS 1961-1966

REASON	NUMBER	PER CENT
Physical or Mental Disability	41	2.54
Work To Assist Family	125	7.75
Military Service	183	11.35
Death	6	0.37
Expulsion	11	0.68
Suspension	157	9.73
Marriage and/or Pregnancy	128	7.94
Unmarried Pregnancy	3	0.19
General Disinterest	221	13.70
Particular Teacher Dislike	2	0.12
Consistent Failure to Achieve	14	0.87
Correctional Institution	15	0.93
Failing to Obey School Regulations	83	5.15
Inability to Get Along with Peers	0	0.00
Completed Special Education	5	0.31
No Information	619	38.37
TOTALS	1,613	100.00

Table 13 seeks to establish how long the family of the dropouts have resided in Nevada. Because dropouts have a reputation of being highly transient, the expectation might have been that dropouts would most often tend to be those persons who had lived less than one year in the State. Examination of Table 13, however, indicates that this is not so, and that the period of residence completed by students who most frequently withdraw is from three to five years. What this table does not show, however, is that while a student's family may have lived in Nevada for three to five years, it does not indicate whether he has lived in the same school attendance area for that period of time. Nevada has a large measure of mobility within the State and it might be speculated, some of these students may be withdrawing, in part, because they are tired of transferring from one county school system to another within the boundaries of the State.

TABLE 13

LENGTH OF NEVADA RESIDENCE OF DROPOUTS ALL JUNIOR AND SENIOR HIGH SCHOOLS 1961-1966

LENGTH OF RESIDENCE	NUMBER OF DROPOUTS	PER CENT OF TOTAL
Less than 1 year	270	16.74
1 to 2 years	203	12.58
3 to 5 years	595	36.89
6 to 10 years	321	19.90
11 or more years	224	13.89
TOTALS	1,613	100.00

Table 14 includes the final information drawn from the school district dropout forms. This table seeks to gain some estimate of the academic achievement that dropouts had recorded while enrolled in school. There are three such categories for which information is obtained: (1) general achievement, (2) reading achievement, and (3) arithmetic achievement. It should be noted that information is not fully available in all of these categories for all of the dropouts, and for this reason, the several totals do not equal 1,613 dropouts on which this study is based. As might be expected, however, in all of the three measurement categories for which records could be found, the majority of the students performed below average. Nevertheless, it is interesting to note that some 22 per cent of the dropouts show average or above-average general academic achievement; nearly 39 per cent of them are average or above average in reading achievement, and approximately one-third are average or above average in arithmetical achievement. This indicates rather clearly that dropouts are by no means drawn exclusively from the academically deficient segment of the student population.

TABLE 14

ACHIEVEMENT IN SCHOOL BY DROPOUTS
ALL JUNIOR AND SENIOR HIGH SCHOOLS 1961-1966

GENERAL ACHIEVEMENT	NUMBER	PER CENT
Above Average	29	2.52
Average	222	19.34
Below Average	897	78.14
TOTALS	1,148	100.00

READING	NUMBER	PER CENT
Above Average	31	5.46
Average	188	33.16
Below Average	348	61.38
TOTALS	567	100.00

ARITHMETIC	NUMBER	PER CENT
Above Average	29	5.15
Average	158	28.06
Below Average	376	66.79
TOTALS	563	100.00

Questionnaires to Dropouts and Graduates

Table 15 presents a summary of the mailed questionnaire which was distributed to dropouts.* While 1,613 students officially withdrew from Washoe County schools during the calendar years 1961-66, only 1,574 students had left addresses to which questionnaires could mailed. Hence, as Table 15 indicates, the smaller number of questionnaires were actually mailed. As might be expected, in the mailing of instruments such as this to individuals for whom recent addresses are not available, many of the questionnaires were not deliverable. It will be seen that of the 1,574 questionnaires mailed, 321 were not deliverable. That is, they were returned after all efforts to forward them had failed. This represents in excess of 20 per cent of all questionnaires sent to dropouts.

Of the questionnaires that were delivered, 1,200 or in excess of 76 per cent of the total, were not returned. Only 53 of the questionnaires mailed to dropouts were completed and returned, a figure which represents only 4.2 per cent of the delivered questionnaires. A comment regarding this very small proportion of returned questionnaires seems to be in order. The investigators, of course, make no claim that the numbers returned were representative of the whole. They were, quite naturally, disappointed in the small number of forms that were completed and sent back. However, because such a great amount of effort was involved in this undertaking it seemed imperative that a complete analysis of these returned forms must be made. This was done even though the data emerging from their analysis could be properly subject to the criticism that an adequate sample had not been drawn.

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*See Appendix A and B for copies of questionnaires to students and parents.

TABLE 15

MAIL SUMMARY OF QUESTIONNAIRES TO DROPOUTS

CATEGORY	NUMBER	PER CENT OF TOTAL
Questionnaires Mailed	1,574	100
Males	1,015	64.5
Females	559	35.5
Questionnaires Not Deliverable	321	20.4
Questionnaires Delivered	1,253	79.6
Questionnaires Delivered and Not Returned	1,200	76.2
Questionnaires Completed and Returned	53*	3.4
Males	40	
Females	13	

*Represents 4.2% of delivered questionnaires

Table 16 summarizes the general success with which the investigators met when distributing questionnaires to the parents of dropouts. It will be seen that there is a surprising similarity between the two groups. Even fewer of the dropout parents responded with completed forms than did their children, with only 42 being returned, representing 3.3 per cent of the delivered questionnaires.

TABLE 16

MAIL SUMMARY OF
QUESTIONNAIRES TO PARENTS OF DROPOUTS

CATEGORY	NUMBER	PER CENT OF TOTAL
Questionnaires Mailed	1,574	100
To Parents of Males	1,015	64.5
To Parents of Females	559	35.5
Questionnaires Not Deliverable	311	19.8
Questionnaires Delivered	1,263	80.2
Questionnaires Delivered and Not Returned	1,221	77.6
Questionnaires Completed and Returned	42*	2.7
By Parents of Males	32	
By Parents of Females	10	

*Represents 3.3 per cent of delivered questionnaires

From the listing of high school graduates of the Washoe County School District for the years 1961 through 1966, 100 names were randomly selected for each of the years. A total of 604 questionnaires was mailed to the selected graduates and their parents. Table 17 shows that of the 604 questionnaires mailed to graduates, some 161 were returned, representing 32.5 per cent of the delivered questionnaires. Similarly, of the 604 graduate parents who were contacted 29.3 per cent receiving questionnaires returned them as is depicted in Table 18. This gross disparity in the interest shown between the students and parents of dropouts and the students and parents of graduates is not without its own significance. It would seem, at the very least, that the extent to which students show either interest or apathy toward school is matched by their parents, or perhaps the interest or apathy of parents is reflected in the attitudes of their children.

TABLE 17

MAIL SUMMARY OF QUESTIONNAIRES TO GRADUATES

CATEGORY	NUMBER	PER CENT OF TOTAL
Questionnaires Mailed	604	100
Males	293	48.5
Females	311	51.5
Questionnaires Not Deliverable	109	18.1
Questionnaires Delivered	495	81.9
Questionnaires Delivered and Not Returned	334	55.3
Questionnaires Completed and Returned	161*	26.7
Males	76	
Females	85	

*Represents 32.5% of delivered questionnaires

TABLE 18

MAIL SUMMARY OF
QUESTIONNAIRES TO PARENTS OF GRADUATES

CATEGORY	NUMBER	PER CENT OF TOTAL
Questionnaires Mailed	604	100
To Parents of Males	293	48.5
To Parents of Females	311	51.5
Questionnaires Not Deliverable	130	21.5
Questionnaires Delivered	474	78.5
Questionnaires Delivered and Not Returned	335	55.5
Questionnaires Completed and Returned	139*	23.0
By Parents of Males	76	
By Parents of Females	63	

*Represents 29.3 per cent of delivered questionnaires

Both the dropout and those who graduated from high school were asked to indicate their present employment and their responses to this question are contained in Table 19. Of the graduates, just over 34 per cent indicated that they were working full-time. However, 33 per cent of the remaining graduates are presently engaged in some type of school or educational program. Those working full-time among the dropout population who reported made up 45 per cent of that group. As might be expected, far fewer of these people are presently engaged in an educational or school program than is true of graduates, with only approximately nine per cent so involved.

As might also be expected, a greater proportion of the dropouts are in military service than is true of those who remained in high school and graduated. One would also predict that a larger proportion of the dropout population would be found in the unemployed categories than would be the case for the graduate group and inspection of Table 19 reveals this, indeed, to be so.

TABLE 19

QUESTIONNAIRE RESPONSES: ITEM 5
PRESENT OCCUPATION

CATEGORY	GRADUATE MALES	GRADUATE FEMALES	COMBINED PERCENTAGE
1. Work Full-Time	21	35	34.1
2. Work Part-Time	2	5	4.3
3. Unempl. & Looking	2	4	3.7
4. Unempl., Not Looking	4	10	8.5
5. School, Full-Time	16	11	16.5
6. School, Part-Time	2	2	2.4
7. School, Work Part-Time	13	10	14.0
8. In Service	12	0	7.3
9. Other	6	9	9.1
TOTALS	78	86	99.9

CATEGORY	DROPOUT MALES	DROPOUT FEMALES	COMBINED PERCENTAGE
1. Work Full-Time	19	5	45.3
2. Work Part-Time	2	0	3.8
3. Unempl. & Looking	3	1	7.5
4. Unempl., Not Looking	0	6	11.3
5. School, Full-Time	1	0	1.9
6. School, Part-Time	0	0	0.0
7. School, Work Part-Time	4	0	7.6
8. In Service	7	0	13.2
9. Other	4	1	9.4
TOTALS	40	13	100.0

Table 20 sought to shed light on the frequency with which the two groups of former students changed their employment. It can be seen that slightly over 50 per cent of both the graduate and the dropout population have held either one or two full-time jobs since leaving school. Nearly three times as many dropouts, however, have held four or more jobs since leaving school than is true of graduates. This latter observation suggests that the dropout is a measurably less stable employee than the student who has completed his high school education. However, data in Table 20 are necessarily confounded by the fact that a large proportion of those people who graduated from high school have been mainly engaged during the interim with further educational undertakings. This last may account for such a large proportion failing to answer this item on the questionnaire.

TABLE 20

QUESTIONNAIRE RESPONSES: ITEM 10
FULL-TIME JOBS HELD SINCE LEAVING HIGH SCHOOL

NUMBER OF FULL-TIME JOBS	GRADUATE MALES	GRADUATE FEMALES	COMBINED PERCENTAGE
1	22	23	27.95
2	16	22	23.60
3	7	9	9.94
4 or more	9	2	6.83
No Answer	22	29	31.68
TOTALS	76	85	100.00

TOTAL GRADUATES: 161

NUMBER OF FULL-TIME JOBS	DROPOUT MALES	DROPOUT FEMALES	COMBINED PERCENTAGE
1	10	3	24.53
2	12	4	30.19
3	3	4	13.21
4 or more	9	0	16.98
No Answer	6	2	15.09
TOTALS	40	13	100.00

TOTAL DROPOUTS: 53

Tables 21 and 22 seek to gain a picture of the weekly earnings of dropouts and graduates. A questionnaire which bears on this type of information is, at best, of doubtful value because there is no good way of verifying the reports that respondents make. However, some differences between the two groups seem apparent. Among the dropouts, for example, there was a larger proportion earning a salary as small as $15 to $25 per week. The three salary categories which run from a low of $66 per week to a high of $120 per week are the modal ranges for both groups. It is, of course, true that studies of income between groups of workers who differ in their respective amounts of education become more significant a substantial period of time after the more educated group has completed their period of training. Salary reports by graduates at this time necessarily include sums they are earning while attending school and these jobs typically carry a smaller rate of pay than is true of a regular full-time position. Even so, there is only a negligible difference between the two groups.

TABLE 21

QUESTIONNAIRE RESPONSES: ITEM 12
AVERAGE WEEKLY SALARY OF GRADUATES

CATEGORY	GRADUATE MALES	GRADUATE FEMALES	COMBINED PERCENTAGE
$ 15 - 25	1	4	3.14
26 - 35	5	4	5.63
36 - 45	1	0	0.62
46 - 55	2	1	1.86
56 - 65	3	8	6.88
66 - 80	4	15	11.88
81 - 100	8	11	11.88
101 - 120	12	5	10.63
121 - 140	6	2	5.00
141 - 160	6	4	6.25
161 - 180	1	0	0.62
181 - 200	1	0	0.62
201 - 220	0	0	0.00
221 - 240	0	0	0.00
241 - Or More	0	1	0.62
No Answer	26	29	34.37
TOTALS	76	84	100.00

TOTAL GRADUATES: 160

TABLE 22

QUESTIONNAIRE RESPONSES: ITEM 12
AVERAGE WEEKLY SALARY OF DROPOUTS

CATEGORY	DROPOUT MALES	DROPOUT FEMALES	COMBINED PERCENTAGE
$ 15 - 25	3	3	11.32
26 - 35	1	0	1.89
36 - 45	1	1	3.77
46 - 55	0	2	3.77
56 - 65	1	1	3.77
66 - 80	6	0	11.32
81 - 100	6	1	13.21
101 - 120	6	0	11.32
121 - 140	2	1	5.66
141 - 160	3	0	5.66
161 - 180	0	0	0.00
181 - 200	2	0	3.77
201 - 220	0	0	0.00
221 - 240	0	0	0.00
241 - Or More	1	0	1.89
No Answer	8	4	22.64
TOTALS	40	13	99.99

TOTAL DROPOUTS: 53

Table 23 reflects the estimate of both dropouts and graduates regarding whether their present work is like what they thought they would be doing while in high school. Examination of this table shows that the formulation of a clear work image by dropouts occurred less frequently than it did for students who finished high school. Moreover, twice the rate of the graduates now report that they are doing exactly what they thought they would be doing while in high school than is true for the dropout group.

TABLE 23

QUESTIONNAIRE RESPONSES: ITEM 13
IS YOUR PRESENT WORK WHAT YOU THOUGHT YOU WOULD DO WHILE IN HIGH SCHOOL?

CATEGORY	GRADUATE MALES	GRADUATE FEMALES	COMBINED PERCENTAGE
Nothing Definite in H.S.	13	12	15.43
Not Anything Like in H.S.	19	24	26.54
Somewhat Like in H.S.	11	19	18.52
Exactly or Almost Like in H.S.	10	11	12.96
No Answer	23	20	26.54
TOTALS	76	86	99.99

TOTAL GRADUATES: 162

CATEGORY	DROPOUT MALES	DROPOUT FEMALES	COMBINED PERCENTAGE
Nothing Definite in H.S.	14	8	41.51
Not Anything Like in H.S.	8	3	20.75
Somewhat Like in H.S.	8	0	15.09
Exactly or Almost Like in H.S.	3	0	5.66
No Answer	7	2	16.98
TOTALS	40	13	99.99

TOTAL DROPOUTS: 53

Table 24 shows a tabulation of answers by dropouts to the question regarding whether or not they now feel their decision to leave school was a good one. While approximately 25 per cent still feel that their decision to withdraw from school was justified, a large majority of those who answered now evidently have had second thoughts and see their decision to drop out of school as a poor one.

TABLE 24

QUESTIONNAIRE RESPONSES: ITEM 8
WAS THE DECISION TO DROP OUT A GOOD ONE?

OPINION	MALES	OPINION	FEMALES	COMBINED PERCENTAGE
Yes	10	Yes	3	24.52
No	23	No	10	62.25
No Answer	7	No Answer	0	13.22
TOTALS	40		13	99.99

TOTAL DROPOUTS: 53

Shown in Table 25 are the responses of dropout students to a query slightly different than that asked and reported in Table 24. In this case, dropouts were asked whether they would advise someone today to drop out of school, if that person were like they were when they themselves made that same decision. Here the data is even more emphatic than that presented in Table 24. Only 15 per cent of the dropouts would suggest that someone like themselves withdraw from school, while nearly 70 per cent would urge such people not to leave school. Again, it seems clear that the overwhelming majority of dropouts have reconsidered and now feel that remaining in school would have been the wisest course for them to follow.

TABLE 25

QUESTIONNAIRE RESPONSES: ITEM 9
WOULD YOU (DROPOUTS) ADVISE SOMEONE TODAY TO DROP OUT?

OPINION	MALES	OPINION	FEMALES	COMBINED PERCENTAGE
Yes	6	Yes	2	15.09
No	26	No	11	69.82
No Answer	8	No Answer	0	15.09
TOTALS	40		13	100.00
		TOTAL DROPOUTS: 53		

A common item on the questionnaires sent to both graduates and dropouts asked who among school acquaintances had helped most in choosing a life plan. These responses have been summarized in Table 26 and resulted in some interesting differences between the two groups of former students. Evidently to very nearly the same degree for both groups, friends and peers gave suggestions influencing the life plan and work of these former students. Teachers proved to be far more helpful in this regard to students who remained in school and graduated than they were to the dropouts. Again, one might expect the student who is oriented toward completing school to be more frequently identified with the faculty than would be those students who are preparing to abandon their formal education. In this connection it is interesting to note that counselors, who traditionally have the role of guiding students into a suitable life plan, effectively touched only one in ten of the former students who graduated and fewer than two in ten for those former students who did not graduate. Moreover, it seems that for a large proportion of both groups of former students, but particularly for those who withdrew, their recollection is that no one gave them any assistance in selecting a suitable life plan.

TABLE 26

QUESTIONNAIRE RESPONSES: ITEM 6
WHO HELPED MOST IN CHOOSING A LIFE PLAN

CATEGORY	GRADUATE MALES	GRADUATE FEMALES	COMBINED PERCENTAGE
Friends, Peers	6	9	9.32
Teachers	19	26	27.95
Counselors	7	10	10.51
No One	22	23	27.95
Other	20	18	23.60
TOTALS	74	86	99.33

TOTAL GRADUATES: 160

CATEGORY	DROPOUT MALES	DROPOUT FEMALES	COMBINED PERCENTAGE
Friends, Peers	3	1	7.54
Teachers	4	1	9.43
Counselors	7	3	18.88
No One	16	5	39.62
Other	10	3	24.53
TOTALS	40	13	100.00

TOTAL DROPOUTS: 53

Both groups of students were asked to indicate whether or not they felt that the school could have helped them develop another skill which they could use now. Table 27 presents this information. Both groups of students evidently feel that the school could have been more helpful in this regard. Some 40 per cent of the graduates reported that they felt the school could have aided them in developing an additional useful skill. The dropout population was even more emphatic in this declaration with 57 per cent indicating that the school could have rendered them more assistance.

TABLE 27

QUESTIONNAIRE RESPONSES: ITEM 19
COULD THE HIGH SCHOOL HAVE HELPED DEVELOP ANOTHER SKILL THAT YOU COULD USE NOW?

OPINION	GRADUATE MALES	GRADUATE FEMALES	COMBINED PERCENTAGE
1. Yes	34	32	40.74
2. No	33	48	50.00
3. Did Not Answer	9	6	9.26
TOTALS	76	86	100.00

TOTAL GRADUATES: 162

OPINION	DROPOUT MALES	DROPOUT FEMALES	COMBINED PERCENTAGE
1. Yes	22	8	56.60
2. No	12	2	26.42
3. Did Not Answer	6	3	16.98
TOTALS	40	13	100.00

TOTAL DROPOUTS: 53

Table 28 shows data similar to that contained in Table 27. This table summarizes responses made to the question of whether the school could have offered an additional course to these former students which would now be helpful to them. Nearly 40 per cent of both groups of former students indicated that the schools could have included a curricular offering which then was not available and which now would be of value. Approximately the same proportion of respondents did not feel that the addition of some other course would materially effect their situation at the present time.

TABLE 28

QUESTIONNAIRE RESPONSES: ITEM 20 COULD THE HIGH SCHOOL HAVE OFFERED ANOTHER COURSE THAT WOULD HELP NOW?

OPINION	GRADUATE MALES	GRADUATE FEMALES	COMBINED PERCENTAGE
1. Yes	41	28	42.86
2. No	28	49	47.83
3. Did Not Answer	7	8	9.31
TOTALS	76	85	100.00

TOTAL GRADUATES: 161

OPINION	DROPOUT MALES	DROPOUT FEMALES	COMBINED PERCENTAGE
1. Yes	15	6	39.62
2. No	17	5	41.50
3. Did Not Answer	8	2	18.86
TOTALS	40	13	99.98

TOTAL DROPOUTS: 53

Dropouts were asked directly whether or not they would have transferred to a vocational-technical school had one been available at the time that they withdrew from school. Table 29 presents the responses to this question. In excess of 43 per cent indicated in the affirmative, while 47 per cent said they would not have made such a transfer and approximately ten per cent failed to respond. If, indeed, the report of the dropouts reflects the sentiments of the dropout population as a whole, then 40 per cent of the 1,613 dropouts surveyed could have been expected to enter a vocational-technical school. This would amount to some 640 students which alone would make a very sizable high school population. It is recognized, of course, that responses individuals enter on a questionnaire may not accurately reflect the behavior they would have shown if it was a real life decision and not simply a paper and pencil reaction made in a moment's time. Nevertheless, this represents a rather sizeable vote for vocational-technical education by the very people who would be most affected.

TABLE 29

QUESTIONNAIRE RESPONSES: ITEM 22 WOULD YOU (DROPOUTS) HAVE TRANSFERRED TO A VOCATIONAL-TECHNICAL SCHOOL?

OPINION	MALES	OPINION	FEMALES	COMBINED PERCENTAGE
Yes	16	Yes	7	43.40
No	20	No	5	47.17
No Answer	4	No Answer	1	9.43
TOTALS	40		13	100.00

TOTAL DROPOUTS: 53

Both the graduates and dropouts were asked whether or not they would enroll at the present time in a vocational-technical school. Predictably, as can be seen from Table 30, a larger proportion of the dropouts than graduates indicated that even now they would be willing to start a vocational-technical training program. Nearly 50 per cent of them answered this question in the affirmative. What is, perhaps, more interesting than the latter observation is the one which indicates that in excess of 21 per cent of the graduates indicated that if a vocational-technical school were available, they would enroll now for some type of training. This emphasizes again that a vocational-technical school would not draw its students exclusively from the ranks of dropouts.

TABLE 30

QUESTIONNAIRE RESPONSES: ITEM 23
WOULD YOU NOW ENROLL IN A VOCATIONAL-TECHNICAL SCHOOL?

OPINION	GRADUATE MALES	GRADUATE FEMALES	COMBINED PERCENTAGE
1. Yes	14	20	21.12
2. No	48	53	62.73
3. Did Not Answer	14	12	16.15
TOTALS	76	85	100.00

TOTAL GRADUATES: 161

OPINION	DROPOUT MALES	DROPOUT FEMALES	COMBINED PERCENTAGE
1. Yes	19	7	49.06
2. No	15	4	35.85
3. Did Not Answer	6	2	15.09
TOTALS	40	13	100.00

TOTAL DROPOUTS: 53

Table 31 concerns itself with a special group of former students made up of those graduates and dropouts who indicated that they would not enroll in a vocational-technical school now. These people were asked their reasons for that judgment. Some 40 per cent of the graduates said that attendance at a vocational-technical school would not improve their work status. However, only five per cent of the dropouts thought such attendance would fail to improve their status. More than 31 per cent of the dropouts said that they would be unable to attend a vocational-technical school either for reasons of cost or inability to get away from the job or home to attend classes.

TABLE 31

QUESTIONNAIRE RESPONSES: ITEM 23
REASONS WHY GRADUATES AND DROPOUTS WOULD NOT ENROLL IN VOCATIONAL-TECHNICAL SCHOOL NOW

CATEGORY	GRADUATE MALES	GRADUATE FEMALES	COMBINED PERCENTAGE
Would Not Improve	20	21	40.59
Could Not Attend	2	5	6.93
Could Not Afford	1	4	4.95
Feel Too Old	0	0	0.00
Other Reasons	25	23	47.52
TOTALS	48	53	99.99

TOTAL GRADUATES: 101

CATEGORY	DROPOUT MALES	DROPOUT FEMALES	COMBINED PERCENTAGE
Would Not Improve	1	0	5.26
Could Not Attend	3	2	26.32
Could Not Afford	0	1	5.26
Feel Too Old	0	0	0.00
Other Reasons	11	1	63.16
TOTALS	15	4	100.00

TOTAL DROPOUTS: 19

Questionnaires to Parents of Graduates and Dropouts

The next 16 tables presented in this study summarize the information which was gained by sending questionnaires to the parents of dropouts and graduates. Each parent group was sent the same questionnaire. The responses varied only in that one group of students did complete high school, while the other did not.

Of considerable relevance to a study of students who withdraw are answers to questions which bear upon whether the parent feels that the decision to allow the child to leave school was a good one. Tables 32 and 33 seek answers to that question. The first attempts to establish whether the parent felt that the decision of his child to withdraw from school was appropriate at the time that it was made. It can be seen that some 80 per cent of the parents felt the decision was a poor one. However, one might conclude from this that their feelings were not sufficiently strong to cause them to dissuade their children from that course of action. Table 33 asks for the same judgement of the parent but for the present time, and the results prove to be essentially the same. There has then, been relatively little shift in the attitude of dropout parents. By and large, the overwhelming majority of them felt that choosing the alternative of quitting school was a mistake and they continue to feel the same way.

TABLE 32

QUESTIONNAIRE RESPONSES: ITEM 5
AT THE TIME YOUR CHILD QUIT SCHOOL, DID YOU THINK IT WAS A GOOD DECISION?

OPINION	PARENTS OF DROPOUT MALES	PARENTS OF DROPOUT FEMALES	COMBINED PERCENTAGE
Yes	3	0	7.14
No	26	8	80.95
No Answer	3	2	11.90
TOTALS	32	10	99.99

TOTAL PARENTS OF DROPOUTS: 42

TABLE 33

QUESTIONNAIRE RESPONSES: ITEM 6
NOW DO YOU THINK YOUR CHILD'S QUITTING SCHOOL WAS A GOOD DECISION?

OPINION	PARENTS OF DROPOUT MALES	PARENTS OF DROPOUT FEMALES	COMBINED PERCENTAGE
Yes	3	0	7.14
No	24	8	76.19
No Answer	5	2	16.67
TOTALS	32	10	100.00

TOTAL PARENTS OF DROPOUTS: 42

One item on each of the questionnaires sent the parents asked them to attempt to recall whether or not they felt the emphasis of college preparation was appropriate during their youngsters' period of high school education. Table 34 should be read in contrast with Table 35. Over half of the graduates' parents felt that the emphasis on college was about right, while more than 30 per cent did not feel that the emphasis was great enough. These two reactions, however, would be expected since these are the parents of the students who not only completed high school, but, in considerable proportions, went on to attend college.

Table 35 presents a summary of the answers received from the parents of students who withdrew. Of those who answered, approximately 20 per cent felt the emphasis on college was not enough, while nearly the same proportion of the parent groups felt it was about right or too much. A large proportion of the dropouts' parents did not, however, elect to answer this question at all.

TABLE 34

QUESTIONNAIRE RESPONSES, PARENTS OF GRADUATES: ITEM 8 WAS THE EMPHASIS ON COLLEGE ABOUT RIGHT WHEN YOUR CHILD WAS IN HIGH SCHOOL?

OPINION	PARENTS OF GRADUATE MALES	FEMALES	COMBINED PERCENTAGE
Was Not Enough	27	17	31.65
Was About Right	39	36	53.95
Was Too Much	4	6	7.20
No Answer	6	4	7.20
TOTALS	76	63	100.00

TOTAL PARENTS OF GRADUATES: 139

TABLE 35

QUESTIONNAIRE RESPONSES, PARENTS OF DROPOUTS: ITEM 8 WAS THE EMPHASIS ON COLLEGE ABOUT RIGHT WHEN YOUR CHILD WAS IN HIGH SCHOOL?

OPINION	PARENTS OF DROPOUT MALES	FEMALES	COMBINED PERCENTAGE
Was Not Enough	8	0	19.04
Was About Right	7	2	21.42
Was Too Much	7	3	23.80
No Answer	10	5	35.70
TOTALS	32	10	99.96

TOTAL PARENTS OF DROPOUTS: 42

Table 36 presents the responses of parents of graduates. These parents present an interesting set of responses in that over 40 per cent indicated that the high school had not provided a sufficient quantity of vocational-technical training. A like number felt that the vocational training was about right. Table 37 presents answers to the question of whether the dropout parent felt that there was a sufficient amount of vocational-technical training in the high school that his youngster attended. Nearly half of these parents felt that there was not a sufficient quantity of this type of training. None, it is interesting to note, felt that there was too much vocational-technical training, and approximately one-quarter felt the quantity was about right. Examination of Tables 36 and 37 shows that out of all of the parents in both groups that responded, only one, the parent of a female student, felt that the emphasis on vocational-technical training was too great. These two tables would seem to give an endorsement from a wide cross-section of parents for greater amounts of vocational-technical training than heretofore has been offered in the county schools.

TABLE 36

QUESTIONNAIRE RESPONSES, PARENTS OF GRADUATES: ITEM 9 DID YOU FEEL ATTENTION TO VOCATIONAL-TECHNICAL TRAINING WAS ABOUT RIGHT WHEN YOUR CHILD WAS IN HIGH SCHOOL?

OPINION	PARENTS OF GRADUATE MALES	FEMALES	COMBINED PERCENTAGE
Was Not Enough	32	26	41.72
Was About Right	31	28	42.44
Was Too Much	0	1	.72
No Answer	13	8	15.11
TOTALS	76	63	99.99

TOTAL PARENTS OF GRADUATES: 139

TABLE 37

QUESTIONNAIRE RESPONSES, PARENTS OF DROPOUTS: ITEM 9 DID YOU FEEL ATTENTION TO VOCATIONAL-TECHNICAL TRAINING WAS ABOUT RIGHT WHEN YOUR CHILD WAS IN HIGH SCHOOL?

OPINION	PARENTS OF DROPOUT MALES	FEMALES	COMBINED PERCENTAGE
Was Not Enough	15	5	47.62
Was About Right	10	1	26.19
Was Too Much	0	0	0.00
No Answer	7	4	26.19
TOTALS	32	10	100.00

TOTAL PARENTS OF DROPOUTS: 42

In Tables 38 and 39 the question is asked whether or not the parent felt that his child would have gained more if he had attended a vocational-technical high school. Virtually two-thirds of the dropout parents answered this question in the affirmative as can be seen in Table 39. What is surprising to note here is that fully one-quarter of the parents of children who successfully completed high school indicated that they believe their child would have gained more if he had attended a vocational-technical high school. Here again, as in previous data presented, there is evidence that the students who successfully complete the curriculum of a comprehensive high school, as well as their parents, are not entirely convinced that such a high was the best of possible training institutions.

TABLE 38

QUESTIONNAIRE RESPONSES, PARENTS OF GRADUATES: ITEM 11 WOULD YOUR CHILD HAVE GAINED MORE IF HE HAD ATTENDED A VOCATIONAL-TECHNICAL HIGH SCHOOL?

OPINION	PARENTS OF GRADUATE MALES	FEMALES	COMBINED PERCENTAGE
Yes	21	13	24.46
No	45	46	65.47
No Answer	10	4	10.07
TOTALS	76	63	100.00

TOTAL PARENTS OF GRADUATES: 139

TABLE 39

QUESTIONNAIRE RESPONSES, PARENTS OF DROPOUTS: ITEM 11 WOULD YOUR CHILD HAVE GAINED MORE IF HE HAD ATTENDED A VOCATIONAL-TECHNICAL HIGH SCHOOL?

OPINION	PARENTS OF DROPOUT MALES	FEMALES	COMBINED PERCENTAGE
Yes	19	8	64.26
No	7	1	19.04
No Answer	6	1	16.66
TOTALS	32	10	99.96

TOTAL PARENTS OF DROPOUTS: 42

Because it is one thing to say that a child would have gained more if he had gone to a vocational-technical school and quite another thing for a parent to say that he would send his child to such a school, there was presented in each questionnaire an item dealing with whether or not the responding parent would have sent his child to a vocational-technical school had one been available. Table 41 presents the responses from the dropout parents. The results here are similar to the responses presented in Table 39. Over 60 per cent indicated that they would have sent their child to a vocational-technical school. A slightly smaller proportion of parents of dropouts indicated that they would have sent their child to a vocational-technical school than indicated that they felt their child would have gained more in such a school. But nearly 20 per cent of the parents of students who actually graduated from a regular high school now report that, had the option been available to them, they would have sent their child to a vocational-technical training institute.

TABLE 40

QUESTIONNAIRE RESPONSES, PARENTS OF GRADUATES: ITEM 11 IF YOU COULD HAVE AT THE TIME, WOULD YOU HAVE SENT YOUR CHILD TO A TECHNICAL TRAINING SCHOOL?

OPINION	PARENTS OF GRADUATE MALES	FEMALES	COMBINED PERCENTAGE
Yes	18	9	19.43
No	48	50	70.50
No Answer	10	4	10.07
TOTALS	76	63	100.00

TOTAL PARENTS OF GRADUATES: 139

TABLE 41

QUESTIONNAIRE RESPONSES, PARENTS OF DROPOUTS: ITEM 11 IF YOU COULD HAVE AT THE TIME, WOULD YOU HAVE SENT YOUR CHILD TO A TECHNICAL TRAINING SCHOOL?

OPINION	PARENTS OF DROPOUT MALES	FEMALES	COMBINED PERCENTAGE
Yes	18	8	61.88
No	9	1	23.80
No Answer	5	1	14.28
TOTALS	32	10	99.96

TOTAL PARENTS OF DROPOUTS: 42

At the risk of belaboring the same point, as presented in the four previous tables, both parent groups were also asked if they were faced with the choice today, would they send their children to a vocational-technical school. The results presented in Table 42 and Table 43 remain substantially the same as presented for the other questions. Two-thirds of the dropout parents say they would send their children today to a vocational-technical school, while a quarter of the parents of students who graduated say they would send their children to a vocational-technical school. In some ways, this last statistic is considerably more meaningful. If the parents of the six or seven per cent of the student population who drop out each year would send their children to a vocational-technical school, this alone would not make for a very large vocational-technical student body. However, if 25 per cent of the parents whose children remain in high school and graduate would send their children to a vocational-technical school, this would make a very substantial enrollment in such a school; an enrollment which would far outnumber the students who would be there because they constitute potential dropouts from a regular high school.

TABLE 42

QUESTIONNAIRE RESPONSES, PARENTS OF GRADUATES: ITEM 12 IF YOU WERE CHOOSING TODAY, WOULD YOU HAVE SENT YOUR CHILD TO A TECHNICAL HIGH SCHOOL?

OPINION	PARENTS OF GRADUATE MALES	FEMALES	COMBINED PERCENTAGE
Yes	22	15	26.62
No	43	42	61.15
No Answer	11	6	12.23
TOTALS	76	63	100.00

TOTAL PARENTS OF GRADUATES: 139

TABLE 43

QUESTIONNAIRE RESPONSES, PARENTS OF DROPOUTS: ITEM 12 IF YOU WERE CHOOSING TODAY, WOULD YOU HAVE SENT YOUR CHILD TO A TECHNICAL HIGH SCHOOL?

OPINION	PARENTS OF DROPOUT MALES	FEMALES	COMBINED PERCENTAGE
Yes	19	9	66.64
No	8	1	21.42
No Answer	5	0	11.90
TOTALS	32	10	99.96

TOTAL PARENTS OF DROPOUTS: 42

The parents of both garduates and dropouts were asked whether or not they felt a vocational-technical programs could best be presented in a separate high school. Here, as reported by Table 44 and Table 45, these two groups of parents are in substantial agreement. Nearly 70 per cent of the parents of dropouts felt that such training should be carried on in a school reserved just for vocational-technical students. While, as can be seen in Table 44, something over 50 per cent of the parents of the graduates agreed with this judgment.

TABLE 44

QUESTIONNAIRE RESPONSES, PARENTS OF GRADUATES: ITEM 13 DO YOU THINK A COMPLETE VOCATIONAL-TECHNICAL PROGRAM CAN BEST BE PRESENTED IN A SEPARATE HIGH SCHOOL?

OPINION	PARENTS OF GRADUATE MALES	FEMALES	COMBINED PERCENTAGE
Yes	47	28	53.96
No	17	27	31.65
No Answer	12	8	14.39
TOTALS	76	63	100.00

TOTAL PARENTS OF GRADUATES: 139

TABLE 45

QUESTIONNAIRE RESPONSES, PARENTS OF DROPOUTS: ITEM 13 DO YOU THINK A COMPLETE VOCATIONAL-TECHNICAL PROGRAM CAN BEST BE PRESENTED IN A SEPARATE HIGH SCHOOL?

OPINION	PARENTS OF DROPOUT MALES	FEMALES	COMBINED PERCENTAGE
Yes	21	8	69.02
No	6	1	16.66
No Answer	5	1	14.28
TOTALS	32	10	99.96

TOTAL PARENTS OF DROPOUTS: 42

The final two tables in this section deal with the estimate of parents regarding whether or not the earning capacity of their children would have been increased if they had spent their high school years in a vocational-technical school. A majority of the dropout parents, nearly 60 per cent of them, felt that the earning power of their children would have been increased by such a training experience. Nearly a third of the parents of graduates felt that the earning power of their children would have been enhanced had they attended a vocational-technical high school. These responses presented in Table 46 and Table 47 represent still another kind of endorsement by school patrons of a complete vocational-technical facility.

TABLE 46

QUESTIONNAIRE RESPONSES, PARENTS OF GRADUATES: ITEM 15 KNOWING YOUR CHILD'S PRESENT EARNING CAPACITY, DO YOU BELIEVE IT WOULD HAVE BEEN INCREASED IF HE HAD SPENT HIGH SCHOOL YEARS IN A VOCATIONAL-TECHNICAL HIGH SCHOOL?

OPINION	PARENTS OF GRADUATE MALES	FEMALES	COMBINED PERCENTAGE
Increased Earnings	22	23	32.37
Decreased Earnings	2	0	1.44
No Affect on Earnings	32	23	39.57
No Answer	20	17	26.62
TOTALS	76	63	100.00
	TOTAL PARENTS OF GRADUATES:		139

TABLE 47

QUESTIONNAIRE RESPONSES, PARENTS OF DROPOUTS: ITEM 15 KNOWING YOUR CHILD'S PRESENT EARNING CAPACITY, DO YOU BELIEVE IT WOULD HAVE BEEN INCREASED IF HE HAD SPENT HIGH SCHOOL YEARS IN A VOCATIONAL-TECHNICAL HIGH SCHOOL?

OPINION	PARENTS OF DROPOUT MALES	FEMALES	COMBINED PERCENTAGE
Increased Earnings	18	7	59.50
Decreased Earnings	1	0	2.38
No Affect on Earnings	7	2	21.42
No Answer	6	1	16.66
TOTALS	32	10	99.96
	TOTAL PARENTS OF DROPOUTS:		42

PART II

THE ATTITUDES OF WASHOE COUNTY SCHOOL DISTRICT STUDENTS TOWARD VOCATIONAL-TECHNICAL EDUCATION

In April of 1967, the Washoe County School District Research Department, in cooperation with the Nevada Research Coordinating Unit, conducted a survey of future vocational plans of all students in grades seven through twelve. The Student Career Interest Form was the instrument used and it was developed by Nevada Research Coordinating Unit researchers. This instrument uses the Dictionary of Occupational Titles as its basic reference point. It is presented in Appendix C.

The data reported by the Student Career Interest Forms are presented in the following Tables 48 through 58 with a brief discussion relating to the tables. The total information is then summarized with some possible recommendations.

Though Table 48 is self-explanatory, attention should be directed to the "total students" figure. A number of student responses had to be discarded because of unacceptable responses, which the computer had to reject. Thus, the figure 7729 does not reflect the total number of students (9,672) who participated. This figure, however, does equal (or exceed) the percentage of responses usually obtained from a questionnaire.

TABLE 48

NUMBER OF STUDENTS IN EACH SCHOOL CLASS BY SEX

SCHOOL	MALE	GRADE FEMALE SEVEN	TOTAL	MALE	GRADE FEMALE EIGHT	TOTAL	MALE	GRADE FEMALE NINE	TOTAL	TOTAL STUDENTS IN EACH SCHOOL
B. D. Billinghurst	121	102	223	106	115	221	110	114	224	668
Archie Clayton	120	100	220	109	101	210	113	99	212	642
Darrel C. Swope	135	130	265	140	125	265	112	100	212	742
E. Otis Vaughn	107	125	232	119	102	221	139	129	268	721
Fred W. Traner	112	105	217	81	71	152	103	100	203	572
George Dilworth	116	126	242	115	92	207	110	101	211	660
Sparks	103	122	225	115	94	209	109	96	205	639
TOTALS	814	810	1624	785	700	1485	796	739	1535	4644
		TEN			ELEVEN			TWELVE		
Earl Wooster	207	205	412	198	169	367	191	180	371	1150
Reno	210	193	403	176	148	324	132	88	220	947
Sparks	209	188	397	165	148	313	144	134	278	988
TOTALS	626	586	1212	539	465	1004	467	402	869	3085
TOTAL FEMALES	3702									
TOTAL MALES	4027									
TOTAL STUDENTS	7729									

The following figures in Table 49, Percentage of Students Who Made Career Choice by Schools, are self-explanatory. There is not a significant difference in the percentages, though more students in Swope feel they have made career choices than in other junior high schools. Interestingly, a greater percentage of junior high students (as compared to senior high students) felt they have made a career choice. Too much cannot be made of this point, however, because national studies indicate significant changes in vocational choices are made by students between grade seven and grade twelve.

TABLE 49

PERCENTAGE OF STUDENTS WHO MADE CAREER CHOICE BY SCHOOLS

SCHOOL	SEVEN	EIGHT	NINE	TOTAL	PERCENTAGE
B. D. Billinghurst	169	194	174	537	80.39
Archie Clayton	156	155	165	476	74.14
Darrel C. Swope	234	209	188	631	85.04
E. Otis Vaughn	160	152	244	556	77.11
Fred W. Traner	179	110	178	467	81.64
George Dilworth	167	162	172	501	76.00
Sparks	165	150	165	480	75.12
TOTALS	1230	1132	1286	3648	AV. 78.55
	TEN	ELEVEN	TWELVE		
Earl Wooster	305	263	290	858	74.61
Reno	307	249	188	744	77.40
Sparks	311	254	229	794	80.36
TOTALS	923	766	707	2396	AV. 77.67

Though data presented in Table 50 reflect a wide range of grades in which career choices were made, it is particularly important to note that the greatest number of choices were made in grades nine and ten by senior high students. If this is an accurate indication, a strong case can be made for stressing occupational possibilities and career development in the ninth and tenth grades.

TABLE 50

GRADE IN WHICH CAREER CHOICE WAS MADE, BY STU

			SEVEN				EIGHT				NINE		
SCHOOL	MALE	FEMALE	TOTAL	PERCENTAGE	MALE	FEMALE	TOTAL	PERCENTAGE	MALE	FEMALE	TOTAL	PERCENTAGE	MAL
B. D. Billinghurst	157	184	341		58	48	106		39	51	90		0
Archie Clayton	145	130	275		49	60	109		50	42	92		0
Darrel C. Swope	201	187	388		67	65	132		61	50	111		0
E. Otis Vaughn	116	128	244		76	77	153		82	75	157		0
Fred W. Traner	141	137	278		54	32	86		47	56	103		0
George Dilworth	141	140	281		74	55	129		45	46	91		0
Sparks Junior High	132	128	260		54	53	107		62	51	113		0
Earl Wooster	49	46	95	11.07	31	42	73	8.51	132	132	264	30.77	12
Reno High School	27	38	65	8.72	38	32	70	9.40	122	122	244	32.75	10
Sparks High School	31	41	72	9.07	36	49	85	10.05	134	109	243	30.47	10
TOTALS	1140	1159	2299		537	513	1050		774	734	1508		33

TABLE 50

HICH CAREER CHOICE WAS MADE, BY STUDENT'S CURRENT SCHOOL

		NINE				TEN				ELEVEN				TWELVE	
LE	FEMALE	TOTAL	PERCENTAGE	MALE	FEMALE	TOTAL	PERCENTAGE	MALE	FEMALE	TOTAL	PERCENTAGE	MALE	FEMALE	TOTAL	PERCENTAGE
39	51	90		0	0	0		0	0	0		0	0	0	
50	42	92		0	0	0		0	0	0		0	0	0	
61	50	111		0	0	0		0	0	0		0	0	0	
82	75	157		0	0	0		0	0	0		0	0	0	
47	56	103		0	0	0		0	0	0		0	0	0	
45	46	91		0	0	0		0	0	0		0	0	0	
62	51	113		0	0	0		0	0	0		0	0	0	
132	132	264	30.77	128	115	243	28.32	56	58	114	13.29	38	31	69	8.04
122	122	244	32.75	106	91	197	26.44	69	41	110	14.77	33	26	59	7.92
134	109	243	30.47	104	114	218	27.46	56	58	114	14.36	38	24	62	7.81
774	734	1508		338	320	658		181	157	338		109	81	190	

These data presented in Tables 51 and 52, though startling in some respects, suggest that more information should be given to parents (who have an exceptionally strong influence) and more vocational guidance should be presented to groups of students. Some attention should be directed to the "none" rows in each grade. Though the trend is in the "right" direction (i.e. most of the students indicated that they received help in making a career choice), classes dealing with knowledge of the world of work should be an integral part of the junior high curriculum.

Though this table is not too important, it is interesting to note that parents are seen as being of most help to students, and that siblings have little influence on vocational choice.

TABLE 51

CONSIDERING THE GRADE CAREER CHOICE WAS MADE IN, WHO HELPED IN CAREER CHOICE

First Row for Helped Most, Second for Some, Third for None

PEOPLE	SEVEN	EIGHT	NINE	TEN	ELEVEN	TWELVE	TOTAL
Parents	998	412	542	197	83	46	2278
	662	322	489	242	133	81	1929
	201	104	121	61	32	19	538
Brother	102	31	46	20	9	3	211
	202	93	110	38	29	23	495
	327	179	217	80	41	25	869
Sister	69	22	44	20	12	6	173
	233	91	107	40	23	8	502
	331	128	191	77	44	12	783
Principal	5	1	3	0	2	0	11
	16	5	10	0	2	2	35
	182	83	128	43	20	14	470
Counselor	40	41	138	57	19	23	318
	157	158	361	159	81	44	960
	140	60	89	39	22	13	363
Teacher	173	100	130	70	33	16	522
	270	139	229	93	52	36	819
	126	38	51	17	5	7	244
Friend	227	112	143	84	50	26	642
	490	222	265	112	69	24	1182
	146	43	71	14	5	3	282
Literature	133	67	88	48	21	11	368
	139	66	94	43	27	11	380
	47	18	29	14	1	2	111
Classes	115	69	135	81	48	26	474
	152	91	115	51	34	16	459
	55	15	20	13	3	4	110
TOTALS:							
Most	1862	855	1269	577	277	157	4997
Some	2321	1187	1780	778	450	245	6761
None	1555	668	917	358	173	99	3770

TABLE 52

WHO HELPED IN MAKING CAREER CHOICE BY STUDENT'S SEX

PEOPLE	MOST					SOME			NONE		
	MALE	PERCENTAGE	FEMALE	PERCENTAGE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
Parents	1534	48.76	1363	45.11	2897	1231	1183	2414	361	363	724
Brother	201	6.39	77	2.22	278	442	203	645	584	574	1158
Sister	58	1.84	168	5.57	226	213	418	631	636	411	1047
Principal	8	.25	5	.17	13	30	19	49	291	281	572
Counselor	210	6.68	170	5.63	380	630	540	1170	229	231	460
Teacher	302	9.60	317	10.51	619	560	455	1015	178	154	332
Friend	346	11.00	446	11.14	792	704	785	1489	178	190	368
Literature	239	7.60	178	5.90	417	258	190	448	85	65	150
Classes	248	7.88	293	9.71	541	278	304	582	67	83	150
TOTALS:	3146		3017		6163	4346	4097	8443	2609	2352	4961

As can be seen from Table 53, there are some rather significant differences among the after school plans of students in Washoe County. At the junior high level, students at Dilworth and Vaughn see immediate entry into the world of work as a significant possibility. The students at Traner do not, possibly because the world of work is not meaningful to them. The students at Vaughn and Traner do not strongly anticipate attendance at a four-year college, while the students at Billinghurst look at college as an expectation. Though a higher percentage of students at Traner hope for a two-year college experience, a smaller percentage visualize entry into the world of work. In other words, our society may not provide anticipated jobs for these people. These reactions on the part of the Traner students are particularly significant, even though personnel in this school have a consistent, yearly program designed to acquaint the students with the world of work.

At the high school level, considerably more students from Sparks and Wooster envision entry into the labor force, while a greater percentage of Reno High School students anticipate college -- either a two- or four-year institution.

TABLE 53

NUMBER OF RESPONSES TO AFTER SCHOOL PL

FTER SCHOOL PLAN	B. D. BILLINGHURST			ARCHIE CLAYTON			DARREL C. SWOPE		
	SEVEN	EIGHT	NINE	SEVEN	EIGHT	NINE	SEVEN	EIGHT	NIN
o To Work	119	140	157	129	137	142	157	153	14
n The Job Training	12	16	15	29	16	24	17	24	2
pprentice Training	5	7	5	8	4	5	5	5	
rade School	6	12	14	9	18	13	11	22	1
echnical School	8	16	14	28	25	11	21	19	
wo-Year College	49	49	23	31	37	35	48	33	3
our-Year College	129	127	146	126	108	108	147	152	10
rmed Forces	32	25	21	47	33	53	24	23	2

	GEORGE DILWORTH			SPARKS JR. HIGH			EARL WOOSTER		
	SEVEN	EIGHT	NINE	SEVEN	EIGHT	NINE	TEN	ELEVEN	TWEL
o To Work	169	131	163	153	127	140	292	256	27
n The Job Training	22	15	23	18	28	29	51	57	5
pprentice Training	4	3	9	4	3	5	12	9	
rade School	7	21	3	10	30	17	37	25	2
echnical School	8	26	9	13	10	15	16	13	1
wo-Year College	57	27	35	44	28	23	73	43	4
our-Year College	106	93	97	120	99	90	170	170	16
rmed Forces	29	36	31	24	25	25	47	50	4

LAN TOTALS:

GO TO WORK	ON THE JOB TRAINING	APPRENTICE TRAINING	TRADE SCHOOL	TECHNICAL SCHOOL
5008	790	189	502	493

SCHOOL	TOTAL PUPILS	GO TO WORK		TWO-YEAR C	
		NUMBER	PERCENTAGE	NUMBER	PER
B. D. Billinghurst	668	416	62	121	
Archie Clayton	642	408	64	103	
Darrel C. Swope	742	456	61	120	
E. Otis Vaughn	721	514	71	142	
Fred W. Traner	572	301	53	126	
George Dilworth	660	463	70	119	
Sparks Junior High	637	420	66	95	
Earl Wooster	1150	818	71	158	
Reno High School	947	490	56	151	
Sparks High School	988	722	73	146	

TABLE 53

PONSES TO AFTER SCHOOL PLANS

N	DARREL C. SWOPE			E. OTIS VAUGHN			FRED W. TRANER		
INE	SEVEN	EIGHT	NINE	SEVEN	EIGHT	NINE	SEVEN	EIGHT	NINE
142	157	153	146	179	146	189	91	82	128
24	17	24	21	22	25	27	15	9	25
5	5	5	4	5	7	4	3	5	5
13	11	22	10	24	18	33	9	4	9
11	21	19	8	14	16	22	18	5	17
35	48	33	39	52	42	48	60	35	31
108	147	152	107	88	88	111	86	72	84
53	24	23	26	26	32	32	42	20	44

GH	EARL WOOSTER			RENO HIGH			SPARKS HIGH		
INE	TEN	ELEVEN	TWELVE	TEN	ELEVEN	TWELVE	TEN	ELEVEN	TWELVE
140	292	256	270	210	153	127	293	216	213
29	51	57	53	20	15	24	51	34	53
5	12	9	7	9	5	5	12	14	11
17	37	25	22	14	16	5	39	23	21
15	16	13	17	13	15	5	37	31	23
23	73	43	42	68	52	31	66	47	33
90	170	170	166	221	183	129	134	108	117
25	47	50	41	63	54	27	57	56	19

HOOL	TECHNICAL SCHOOL	TWO-YEAR COLLEGE	FOUR-YEAR COLLEGE	ARMED FORCES
	493	1281	3682	1064

O WORK	TWO-YEAR COLLEGE		FOUR-YEAR COLLEGE	
PERCENTAGE	NUMBER	PERCENTAGE	NUMBER	PERCENTAGE
62	121	18	402	60
64	103	16	342	53
61	120	16	406	55
71	142	20	287	40
53	126	22	242	42
70	119	18	296	45
66	95	15	309	49
71	158	14	506	44
56	151	16	533	56
73	146	15	359	36

As can be seen, there is a very small amount of indecisiveness on the part of these students. The percentage of students (38.5) who anticipate immediate post-school entry into the world of work is impressive. More impressive, however, is the combined percentage total (38.4) of students who anticipate attendance at a two- or four-year college. Though some duplication of response exists, these figures presented in Table 54 can be viewed as reliable.

TABLE 54

STUDENTS' AFTER SCHOOL PLANS BY SEX

	NO			YES			
AFTER SCHOOL PLAN	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	GRAND TOTAL
Go To Work	154	181	335	2400 (34.76%)	2608 (42.73%)	5008 (38.05%)	5343
On the Job Training	14	11	25	379 (5.49%)	412 (6.75%)	791 (6.08%)	816
Apprentice Training	4	3	7	112 (1.62%)	77 (1.26%)	189 (1.45%)	196
Trade School	3	9	12	205 (2.97%)	298 (4.88%)	503 (3.87%)	515
Technical School	2	0	2	305 (4.42%)	188 (3.08%)	493 (3.79%)	495
Two-Year College	0	10	10	508 (7.35%)	772 (12.65%)	1280 (9.84%)	1290
Four-Year College	17	28	45	2012 (29.14%)	1670 (27.36%)	3682 (28.03%)	3727
Armed Forces	57	9	66	984 (14.25%)	79 (1.29%)	1063 (8.17%)	1129
TOTALS	251	251	502	6905 100.00%	6104 100.00%	13009 100.00%	13511

The following two tables are quite important. Considerable evidence exists that children relate strongly to the occupation of their father and/or mother. Significantly, the students were asked to indicate through the presentation of a wide range of occupational choices, whether they really knew what their parents did in the world of work. This is an amazingly accurate indication. Quite frequently students try to "upgrade" their father's occupation or do not even know them. As an illustration, students indicated 7.09 per cent of fathers' occupations in "construction," while official figures from the Nevada Employment Security Department place this figure at 7.61 per cent for that particular month in which the students completed the questionnaire.

Table 55 presents the fifteen occupational classifications with the highest incidence of workers reported for fathers.

Appendix D presents the Occupational Categories from which the students selected their parents' occupation. Appendix E presents the occupations of the fathers and mothers of the students as reported in their entirety.

TABLE 55

THE FIFTEEN OCCUPATIONS OF FATHERS WITH THE HIGHEST INCIDENCE OF WORKERS

	CODE	OCCUPATION	NUMBER	PER CENT
1.	99	Work at Home	738	9.5
2.	86	Construction	548	7.1
3.	18	Managers and Officials	518	6.7
4.	62	Mechanics and Machinery Repairmen	365	4.7
5.	25	Salesperson of Services	361	4.7
6.	26, 27, 28	Salesperson of Commodities	345	4.5
7.	90	Motor Freight Occupations	305	4.0
8.	16	Administration Occupations	303	3.9
9.	31	Food and Beverage Preparation and Service	300	3.9
10.	37	Protective Service	295	3.8
11.	34	Amusement and Recreation (including Gambling)	268	3.5
12.	1	Engineering and Architecture (including technicians)	264	3.4
13.	82	Electrical Occupations	230	3.0
(Tied) 14.	9	Education	229	3.0
(Tied) 14.	91	Transportation	229	3.0

Table 56 is apparently an accurate reflection (on the part of the students) as to mothers' occupations. Heavy emphasis in sales and service suggests that, in terms of jobs available and held, more opportunities for training in these areas should be made available to students.

TABLE 56

THE FIFTEEN OCCUPATIONS OF MOTHERS WITH THE HIGHEST INCIDENCE OF WORKERS

	CODE	OCCUPATION	NUMBER	PER CENT
1.	99	Work at Home	3508	45.4
2.	20	Stenography, Typing, Filing, etc.	954	12.3
3.	34	Amusement and Recreation (including Gambling)	480	6.2
4.	31	Food and Beverage Preparation and Service	479	6.2
5.	21	Computing and Recording	395	5.1
6.	30	Domestic Service	336	4.3
7.	9	Education	260	3.4
8.	26, 27, 28	Salesperson of Commodities	183	2.4
9.	23	Information and Message Distribution	91	1.2
10.	25	Salesperson of Services	90	1.2
11.	32	Lodging Service Occupations	75	1.0
12.	33	Cosmetology	72	.9
13.	16	Administrative Occupations	57	.7
14.	18	Managers and Officials	43	.6
15.	36	Apparel and Furnishings Service	38	.5

Table 56 is apparently an accurate reflection (on the part of the students) as to mothers' occupations. Heavy emphasis in sales and service suggests that, in terms of jobs available and held, more opportunities for training in these areas should be made available to students.

TABLE 56

THE FIFTEEN OCCUPATIONS OF MOTHERS WITH THE HIGHEST INCIDENCE OF WORKERS

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4.	31	Food and Beverage Preparation and Service	479	6.2
5.	21	Computing and Recording	395	5.1
6.	30	Domestic Service	336	4.3
7.	9	Education	260	3.4
8.	26, 27, 28	Salesperson of Commodities	183	2.4
9.	23	Information and Message Distribution	91	1.2
10.	25	Salesperson of Services	90	1.2
11.	32	Lodging Service Occupations	75	1.0
12.	33	Cosmetology	72	.9
13.	16	Administrative Occupations	57	.7
14.	18	Managers and Officials	43	.6
15.	36	Apparel and Furnishings Service	38	.5

Research literature which deals with the World of Work quite frequently states that there is a relationship between parental occupations and the job which is chosen by the student. When we consider the number of responses in this study (7000+) and the correlation between the above two variables, this information thus assumes national importance by verifying previously stated opinions. Though there is a significant statistical relationship between the subject's "first desirable job" (most wanted) and the father's current occupation, there is a highly significant relationship between the "first realistic job" (most likely) and the father's current occupation.

No attempt was made to discriminate between sexes in this table (57). When one cancels out the number of females in the study, the relationship between the males "first realistic job" and their fathers' current occupations is even more striking. Too, the data suggests that females are considering occupations formerly thought to be primarily masculine.

TABLE 57

CORRELATION BETWEEN PARENTS' JOBS AND STUDENTS' FUTURE JOB

N = 7729

Correlation Necessary For: (1) .01 Level of Significance = .08
(2) .05 Level of Significance = .06

FATHER'S JOB	
First Desirable Job	.10949869
Second Desirable Job	.11170168
First Realistic Job	.13578420
Second Realistic Job	.11154267
MOTHER'S JOB	
First Desirable Job	.04227276
Second Desirable Job	.02135115
First Realistic Job	.04839305
Second Realistic Job	.03420599

The following information presented in Table 58 is of vital importance. It shows that nearly two of every three (4670) students reported that they would not go to a vocational-technical school, and that one of three (2480) would attend a vocational-technical school.

TABLE 58

RESPONSE TO QUESTION 11:
WOULD YOU GO TO A LOCAL OR REGIONAL
VOCATIONAL-TECHNICAL SCHOOL?

Number of Negative Responses to Question 11:	4670
Number of Affirmative Responses to Question 11:	2480
Total Responses:	7150

Summary

A high percentage of responses from students in grades seven through twelve in Washoe County schools revealed the following salient features:

(1) Students in different junior high schools have significantly different tentative career choices.

(2) The majority of senior high students indicate they made career choices in grades nine and ten.

(3) Students respect the help and guidance of their parents and would benefit from vocational guidance in groups.

(4) Students in Washoe County schools would benefit from added curriculum and guidance services oriented toward the world of work.

(5) Female students envision an immediate entry into the world of work more than is commonly recognized. Serious consideration to pre-employment curricula should be considered.

(6) Students accurately perceive that sales and services occupations are a vital part of the Washoe County economy. This, coupled with the individual commitment to those occupations (as reflected by the correlation between the student's "realistic vocational choice" and their father's occupation), suggests that course offerings and vocational experiences should be slanted in this direction.

(7) One of three students stated they would attend a local vocational-technical school if offered the opportunity.

PART III

WASHOE COUNTY SCHOOL DISTRICT
VOCATIONAL-TECHNICAL COURSE OFFERINGS - SEPTEMBER 1967

Courses presently certified by the State Department of Education as vocational-technical courses have been marked with an asterisk (*).

Collateral courses to vocational-technical instruction, but not qualifying for certification are listed without an asterisk.

Junior High Schools

The following courses are offered in all seven junior high schools with slight variation to conform to particular school situations. These courses are not certified by the State Department of Education as vocational-technical courses.

Grade 7.

Home Economics: An 18 week broad course encompassing orientation to the areas of foods and nutrition, childcare, sewing and clothing construction.

Industrial Arts: An 18 week general three-phase orientation to: woodworking tools and machines, basic mechanical tools and drawing, metal tools and machines, graphic arts.

Grade 8.

Home Economics: A 36 week course introducing basic skills in clothing construction, meal planning and preparation, foods and nutrition, child development and care.

Industrial Arts: A 36 week course of three twelve-week phases: introducing and familiarization of woodworking and metal techniques, tools and machines, mechanical drawing tools and techniques, and fundamentals of electricity and graphic arts.

Grade 9.

Home Economics: A 36 week course, for one credit, designed to familiarize student with personal, family and community problems, as well as in-depth treatment of clothing planning and construction, meal planning and preparation, foods and nutrition, and child care and development.

Industrial Arts: A 36 week course, for one credit, designed to make the student functional with woodworking and metal tools and machines and provide in depth learning in graphic arts and electricity.

Mechanical Drawing: A 36 week course, for one credit, designed to make the student functional with the tools of drafting and to develop skill in the techniques of geometric, isometric and orthographic drawing. Students are required to prepare a given number of drawings per week during the year.

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Senior High Schools

Sparks High School

Business and Commercial:

* Typing 3-4: A two-semester course with emphasis on business typing. This course is designed for students interested in business as a career. Elective to sophomore, junior and senior students. Prerequisite: None. One credit.

* Typing 5-6: A two-semester course with emphasis placed on business correspondence and office forms. Speed and accuracy are stressed. This class is designed for students planning business careers. Elective to junior and senior students. Prerequisite: Satisfactory completion of Typing 3-4. One credit.

General Business 3-4: A two-semester course designed to give the student an understanding of the nature of business and the importance of business activities in personal, state and national welfare. Elective to sophomore, junior and senior students. Prerequisite: None. One credit.

Business Mathematics 3-4: A two-semester course designed to give students the basic mathematics that will be necessary in a business or in an office. The course includes discounts, commissions, and taxes, as well as a review of the fundamental arithmetic processes. Satisfies high school mathematics requirements for graduation, but does not meet college entrance requirements. Elective to sophomore, junior and senior students. Prerequisite: None. One credit.

Business Law 5-6: A two-semester course concerned primarily with the legal principles that apply to business situations and transactions. The course considers business problems of interest to the individual in business and in everyday life. The course includes sales contracts, ownership and transfer of property, agency relationships, and negotiable instruments. Elective to junior and senior students. Prerequisite: None. One credit.

* Shorthand 5-6: A two-semester course in Gregg Shorthand. The students should be able to take dictation at the rate of 60 to 80 words per minute at the end of the year. Elective to junior and senior students. Prerequisite: None. One credit.

* Shorthand 7-8: A two-semester course that is a continuation of Shorthand 5-6. Intense work is done in typing, punctuation, good sentence structure, spelling, and speed building. Students should be able to take dictation at the rate of 120 words per minute by the end of the year. Elective to senior students. Prerequisite: Shorthand 5-6 and Typing 3-4. One credit.

* Bookkeeping 5-6: A two-semester course that introduces the student to the keeping of a systematic record of business transactions. The complete bookkeeping cycle is studied. Emphasis is placed on work sheets, financial statements, payrolls, depreciation and disposal of fixed assets, notes and interest, and accrued expenses. Elective to junior and senior students. Prerequisite: None. One credit.

* Business Machines 5-6: A two-semester course that includes filing and business machines. The machines studied include adding machines, calculators, dictating and transcribing

equipment, proportional-spacing typewriters, posting machines, duplicating equipment and a key punch. Elective to junior and senior students. Prerequisite: Typing 3-4. One credit.

Business English 5 or 6: A one-semester course that emphasizes the application of business English in today's communications and business methods. The student's personal needs for business English are stressed in letters of application and in business letters that the students must write. Prerequisite: None. Elective to junior and senior students. One-half credit.

Home Economics:

* Home Economics 1-2: A two-semester course designed to help the student understand personal, family and community problems. It includes basic skills in sewing and clothing selection; knowledge of foods and nutrition; a unit in child development and guidance with play school practice; study of art principles as they relate to the girl and her room. Elective to sophomore and junior students. Prerequisite: None. One credit.
* Home Economics 3-4: A two-semester course designed to increase skills learned in Home Economics 1-2. Clothing selection and buying; family; pre-natal development and care of infants to one year; increased knowledge of food and nutrition; sewing skills more advanced; short unit in home furnishing, stressing color and good taste in furniture and accessories. Elective to sophomore, junior and senior students. Prerequisite: Home Economics 1-2. One credit.
* Creative Foods 5: A one-semester course offered first

semester. Study of basic principles and practices of cooking, nutrition, and meal planning. Practice in careful buying and selection of food. Study of current recipes in relation to time and ability. Elective to junior and senior students who have not had Home Economics 3-4. One-half credit.

* Creative Sewing 6: A one-semester course offered second semester. A study of fundamentals applied to all family clothing. Learning to recognize values in buying clothes, knowledge of fabrics and their care. Sewing skills stressed. Elective to junior and senior students. Prerequisite: None. One-half credit.

* Home Furnishing 5: A one-semester course offered first semester. It is a study of the economic and psychological aspects of all types of housing; principles of color and design, and the selection and arrangement of home furnishing. Elective to junior and senior students. Prerequisite: None. One-half credit.

* Home Management 6: A one-semester course offered second semester. The selection and care of household equipment and the development of methods and skills in managing a home are taught. The effective use of time, money, and energy are stressed. Elective to junior and senior students. Prerequisite: None. One-half credit.

* Senior Homemaking 7-8: A two-semester course covering as many homemaking needs as possible: money-management, child care, cooking, selection of household equipment, sewing fundamentals and buying family clothing. Elective to senior

students who have not had Home Economics in high school. One credit.

Industrial Arts:

Industrial Arts Metal 3-4: A two-semester general course designed for beginners in metalwork, including arc welding, gas welding, bench metal, machine work, metal spinning and foundry. One hour per week is spent in the classroom and four hours per week in the shop. Students pay for all project materials. Students must have accident insurance. Elective to sophomore and junior students. Prerequisite: None. One credit.

* Vocational Machine Shop and Welding 5-8: A two-semester advanced vocational course that is three periods in length per day, including welding, gas welding, bench and machine metal work. Students may major in welding or machine work. Emphasis is on skill, not projects. One hour per day is spent in the classroom and two hours per day in the shop. Students pay for all project materials. Students must have accident insurance. Elective to junior and senior students. May be taken two years for credit. Prerequisite: Industrial Arts Metal 3-4. Three credits.

Industrial Arts Automotive 3-4: A two-semester course designed to prepare the student for a course in Vocational Automotive Mechanics. The course will consist of related information and laboratory work. Elective to sophomore and junior students. Prerequisite: None. One credit.

* Vocational Automotive Mechanics 5-8: A two-semester course that is three hours per day in length. General automotive shop work on live units with up-to-date testing equipment is offered. Related information is offered by use of textbooks and lecture. Shop safety is stressed. Elective to junior and senior students. May be taken two years for credit. Accident insurance and coveralls are required. Prerequisite: Industrial Arts Automotive 3-4. Three credits.

Industrial Arts Wood 3-4: A two-semester general course designed for beginners in woodwork. It includes the basic fundamentals of carpentry. It is intended to help the student to develop an understanding and appreciation of tools and processes involved in woodworking. One hour per week is spent in classroom and four hours per week in the shop. Students pay for all project materials. Students must have accident insurance. Elective to sophomore, junior and senior students. Prerequisite: None. One credit.

Industrial Arts Advanced Wood 5-6: A two-semester advanced course designed for those who are interested in developing the skills and techniques of furniture making, cabinet making, finishing, and upholstering. One hour per week is spent in the classroom, and four hours per week in shop. Students pay for all project materials. Students must have accident insurance. Elective to junior and senior students. Prerequisite: Industrial Arts Wood 3-4 or equivalent. One credit.

Technical Electronics 1-2: A one-hour, two-semester course for students desiring a strong background and solid practical experience in electronics. Additional past high school study may enable the student to specialize in one of the many highly skilled electronic technician positions, or the engineering field if he goes to college. A student must take an academic program including mathematics in order to qualify for this course. Normally a student would plan to take Technical Electronics 3-6 and perhaps Technical Electronics 7-8 after completing Technical Electronics 1-2. This course is supported by the State and Federal governments. The course will count as a science requirement toward graduation. Elective to sophomore, junior and senior students. Accident insurance is required. Prerequisite: Algebra, An academic background and a projected academic schedule. One credit.

* Technical Electronics 3-6: A two-hour, two-semester course for students desiring a strong background and solid practical experience in electronics. This course continues with lessons from Technical Electronics 1-2. Elective to junior and senior students. Accident insurance is required. Prerequisite: An academic background and a projected academic schedule, Technical Electronics 1-2, or Industrial Arts 3-4 (with an average grade of 86% or higher in Electricity 3-4). Two credits.

Technical Electronics 7-8: A one-hour, two-semester course for students desiring to continue their study in this field. This course continues with lessons from Technical Electronics 3-6. Elective to senior students. Accident insurance is required. Prerequisite: An academic background and projected academic schedule. Technical Electronics 3-6. One credit.

Industrial Arts Electricity 3-4: A one-hour, two-semester course for students desiring a vocation or hobby; lectures on basic theory and practical experience in all of the basic areas provide the necessary background common to all fields in electricity and electronics. Industrial Arts Radio 5-6 and Industrial Arts 7-8 are available if an interest is found by the student. Students attaining a grade average of 86% or higher in this course are eligible for Technical Electronics 3-6 providing other prerequisites are met (see Technical Electronics prerequisites). Elective to sophomore, junior and senior students. Accident insurance is required. Prerequisite: None. One credit.

Industrial Arts Radio 5-6: A one-hour, two-semester course that stresses electronics more than electricity. Assignments include practical projects, lectures, and homework on theory. Vacuum tubes, power supplies and radio receivers are the broad areas of study. Elective to junior and senior students. Accident insurance is required. Prerequisite: Industrial Arts Electricity 3-4, or Technical Electronics 1-2. One credit.

Industrial Arts Radio 7-8: A one-hour, two-semester course that continues study in this field. Elective to seniors. Accident insurance is required. Prerequisite: Industrial Arts Radio 5-6. One credit.

Reno High School

Business:

* Bookkeeping 5-6: An introduction to elementary, double-

entry bookkeeping, including the use of business papers, forms, and reports; and the analysis and interpretation of personal and business records. Appreciation and understanding of modern business and its economic adjustments. Attention given to problems in personal bookkeeping, proprietorship, and partnership. Prerequisite: A good background in arithmetic, junior standing. Elective. Five periods per week for one year. One unit.

Business English 7-8: A course primarily arranged to help the business student develop skill in the use of oral and written English pertinent to business with emphasis on business correspondence. Business ethics and relationships analyzed and studied. A consideration of personal characteristics necessary for success in today's business world. Some attention given to consumer interpretations and appeals in advertising. Prerequisite: Senior standing; course open to students with special interest in business and with credit in other business courses; an average grade in English 5-6. Elective. Five periods per week for one year. One unit.

Business Law 5-6: A study of law as it will later affect the individual in business and his own life. Consideration of problems and situations that render legal knowledge and good legal advice necessary. Not a legal course. Prerequisite: Junior standing; average grades in other subjects. Elective. Five periods per week for one year. One unit.

* Business Machines 7-8: A course primarily for students who plan to enter business after high school graduation. Instruc-

tion -- and development of proficiency -- in the operation of various types of calculators, adding machines, duplicating machines, electric typewriters, voice writing equipment, and filing. Prerequisite: Senior standing, credit in Typing 1-2 with an average grade, and permission from the department chairman. Class limited to fifteen students. Elective. Five periods per week for one year. One unit.

Business Mathematics 3-4: A study of the application of mathematics to the field of business with emphasis on personal-use values to the business consumer. Review of fundamental arithmetical processes. Study of invoices and billing, discounts, interest, insurance, property, business records and graphs. Elective. Five periods per week for one year. One unit.

* Shorthand 5-6: A detailed study of shorthand fundamentals, reading, writing, and transcribing. Prerequisite: Junior standing; enrollment in -- or preferably completion of -- Typing 1-2; average grades in other subjects. Elective. Five days per week for one year. One unit.

* Shorthand-Transcription 7-8: A continuation of Shorthand 5-6 with greater concentration on fundamentals and mastery of shorthand skills. Dictation speed developed from 80 up to and including 140 words per minute. Two years of shorthand recommended for personal use or for vocational competence. Course designed to give the student a knowledge of office procedures, practice in skills usually required of an office worker, and speed in transcribing shorthand notes to a mailable typed form. Review of fundamentals in typewriting,

spelling, and English composition. Desirable personal traits stressed and developed. Prerequisite: Senior standing; credit in Shorthand 5-6, enrollment in -- or preferably completion of -- Typing 3-4 with an average grade; an average grade in English 5-6; permission of the department chairman. Elective. Five periods per week for one year. One unit.

Typewriting 1-2: A course planned to give the student a knowledge of the typewriter and an appreciation of its effective use; to establish correct techniques of operation; to teach proper care of typewriter; to acquaint the student with personal skills, business forms, and procedure. Course recommended for vocational and/or personal use. Elective. Five periods per week for one year. One unit.

* Typewriting 3-4: A course planned to emphasize business and legal typing, office forms and office problem situations. Elective. Five periods per week for one year. One unit. Prerequisite: Typewriting 1-2.

Homemaking:

* Homemaking 1-2: A broad course encompassing six areas: Child guidance, clothing, personal development and family living, art and storage in the home, management of personal spending, and foods and nutrition. Selected information in these areas covered as an introduction to the complex job of the homemaker today. Attention given to the development of skills in clothing construction; meal planning and preparation; management of resources, such as time, money, and energy. Textbook assignments; notebook and one home project required

each semester. Elective. Five periods per week for one year. One unit.

* Homemaking 3-4: A course including a more detailed study of two specific areas: clothing and construction with emphasis on meeting personal clothing need through the study of design, color, textiles, textile and garment labeling, and more advanced clothing construction skills; housing and home furnishings with emphasis on developing an appreciation of the importance of home furnishing and family living. Prerequisite: Homemaking 1-2. Elective. Five periods per week for one year. One unit.

* Homemaking 3-4 (alternate course): A detailed study of family meals and hospitality with emphasis on developing increased knowledge and skill in meal planning, preparation, and service; home management with attention focused on management of ourselves, management in homemaking activities, and management in the family. Emphasis placed on analyzing one's values and goals as a basis for making choices in the use of one's resources. Prerequisite: Homemaking 1-2. Elective. Five periods per week for one year. One unit.

* Homemaking 7-8: A course designed to prepare the student for marriage and successful family living. Attention given to such topics as human understanding, problems of dating and courtship, preparation for marriage, money management, infant care and development, home nursing, family meals, housing and home furnishings. Textbook assignments; extensive outside reading; book reports each semester. Prerequisite: Senior standing. Elective. Five periods per week for one year. One

unit.

* Food Services 7-8: A course designed to interest the student in the hotel and restaurant services. Elective. Ten class and laboratory periods per week for one year. One unit.

Industrial Arts:

Auto Mechanics 1-2: An introduction to the use of shop tools and machines. Efficient work habits developed, including thoughtful processes applicable to mechanical and constructive work; cooperative skills desirable in working with others; skills in the use of a wide range of tools and machines; drafting skills; safety tests in connection with the use of tools and the operation of machines and automobiles. Practical problems in mathematics included as applied to shop work. Mechanical Drawing 1-2 recommended to be taken simultaneously with this course. Elective. Five periods per week for one year. One unit.

Auto Mechanics 3-4: A continuation of the introductory course with further training in the use of tools, machines, and other equipment; and in design and construction. Prerequisite: Auto Mechanics 1-2; credit in Mechanical Drawing 1-2. Elective. Five periods per week for one year. One unit.

* Auto Mechanics 5-8: An advanced course enabling the student to extend his skills through work on his own automobile (or other vehicle and equipment supplied by the shop); maintenance repair, design and construction of tools and equipment; heat treating and tempering of steels. Practice in maintenance and repair required to be in accordance with factory specifi-

cations, state and local regulations to assure the safe and efficient operation of vehicles. Prerequisite: Auto Mechanics 1 through 4; credit in Mechanical Drawing 1-2. Elective. Five periods per week for a minimum of one year. Minimum one unit each year.

Crafts 1-2: A basic course in ceramics, textile decoration, metal work, enameling, and leather tooling with stress on elements of good design. Reading assignments for art background. Elective. Five periods per week for one year. One unit.

Crafts 3-6: An advanced course in creative craftwork, including design and color, ceramics, silver work, jewelry, advanced textile design, leather carving and individual interest projects. Continued reading assignments. Elective. Prerequisite: Crafts 1-2. Five periods per week for one year. One unit.

* Electronics 3-4: A study of electrical terms and laws; DC circuits; AC circuits; electromagnetism; communication equipment (telephone and telegraph, simple radio theory and construction); motors and generators. Out-of-class preparation and reports required. Elective. Five periods per week for one year. One unit.

* Electronics 5-8: An introduction to modern concepts in electricity, electronics, and technology, including the relationship between science and mathematics. Application of these theories in the field of communications, construction, manufacturing, transportation, and the development of power. Basic instruction in the use of tools and related materials

and in industrial processes common in electrical and electronics work. Individual electrical projects required of each student. Elective. Ten periods per week for one year. Minimum one unit each year.

1 Graphic Arts 1-2: An introduction to the fundamentals, techniques, and materials in printing. The development of skills and safe working habits with various printing tools, machines, and materials. Basic principles of letterpress, intaglio, stereotype, lithographic, virkotype, block and silkscreen printing and reproduction considered. Beginning photography and bookbinding. Practical problems in mathematics as directly applied to printing. Out-of-class preparation and reports required. Elective. Five periods per week for one year. One unit.

Industrial Mathematics 3-4: Review and application of common mathematics, fractions and decimals. Formulas and their application to the computation of turning and cutting speeds on the machine lathes, pulley and gear speeds, ratios, horsepower and percentage problems. Algebra and trigonometry as applied to general shop practices. Extensive out-of-class preparation required. Elective. Five periods per week for one year. One unit.

Mechanical Drawing 1-2: A course to train the student in standard drafting room work habits, including instruction

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1 Courses set up by content for Vocational-Technical Certification when instructors qualify for State certification requirements.

in proper use of drafting tools and other equipment, and in lettering. Attention given to problems in geometrical construction and the theory of shape description. Instruction included in isometric drawing, orthographic projection, welding drawing, sheetmetal patterns, sectioning, auxiliary views and revolutions, thread representations, cam and gear drawing, and drawing reproduction. Extensive out-of-class preparation required. Course open to both boys and girls. Elective. Five periods per week for one year. One unit.

1 Mechanical Drawing 3-4: A course to explore drafting as used in the machine and architectural industries. Advanced orthographic projection and cam and gear drawing covered with an extensive advanced machine drawing project assigned as a supplement to this area. Two and three-point perspective illustration for industry and sheetmetal pattern development areas, such as intersections, radial line development, and triangulation included. Architectural building techniques and material and building symbols for a one-story frame dwelling covered. All drawings to be done in ink. Extensive out-of-class preparation required. Prerequisite: Mechanical Drawing 1-2. Elective. Five periods per week for one year. One unit.

1 Mechanical Drawing 5-6: Advanced instruction in architectural design and industrial drafting. First semester devoted entirely

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1 Courses set up by content for Vocational-Technical Certification when instructors qualify for State certification requirements.

to the design and planning of an original single-story family dwelling to include two-point perspective floor plan, sections elevations, plot plan, and foundation plan. Second semester devoted to advanced pictorial machine drawing to develop a better understanding of machine operations and techniques of industry. Related informational research topics assigned. Prerequisite: Mechanical Drawing 1 through 4. Elective. Five periods per week for one year. One unit.

Metals 1-2: A course designed to acquaint the student with the tools, materials, machines, and operations in the broad field of metalworking. Experiences in bench metal, sheet-metal, welding, foundry, forging, heat treating, and machine shop included in the course content. Exercises and projects required to develop the basic skills in this area as indicated for Auto Mechanics 1-2. Mechanical Drawing 1-2 recommended to be taken simultaneously with this course, if the student has less than one unit of credit in mechanical drawing. Elective. Five periods per week for one year. One unit.

[1] Metals 3-4: A continuation of the introductory course with instruction in approved industrial production practices. Repairing and rebuilding of equipment. Individual project study and fabrication. Prerequisite: Metals 1-2. Elective. Five periods per week for one year. One unit.

[1] Metals 5-8: An advanced course in metalworking technology,

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wherein the student works with assigned projects on an individual basis and through this advanced instruction in his field of interest further prepares himself for one or more of the many technical areas of our present-day industrialized society. Prerequisite: Metals 1 through 4. Elective. Five periods per week for one year. One unit each year.

Woodworking 1-2: An introduction to woodworking tools, machines, and processes. Exercises and projects to develop the basic skills in this area as indicated for Auto Mechanics 1-2. Mechanical Drawing 1-2 recommended to be taken simultaneously with this course. Elective. Five periods per week for one year. One unit.

1 Woodworking 3-4: A continuation of the introductory course with instruction in advanced woodworking processes. Prerequisite: Woodworking 1-2; credit in Mechanical Drawing 1-2. Elective. Five periods per week for one year. One unit.

1 Woodworking 5-8: Advanced instruction in repairing and rebuilding furniture; construction of projects, equipment, and furniture; processes in finishing and refinishing; use of fillers, stains, dyes, paint, shellac, varnish, lacquers, plastics and enamels; brush and spray processes. Cabinet design and construction; identification of woods by name and grade; estimating cost and construction; methods of processing lumber; care of tools and machines. Prerequisite:

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1 Courses set up by content for Vocational-Technical Certification when instructors qualify for State certification requirements.

Woodworking 1 through 4; credit in Mechanical Drawing 1-2. Elective. Five periods per week for a minimum of one year. One unit each year.

Wooster High School

Business:

Bookkeeping 1-2N: A course which introduces the student to double-entry bookkeeping, including the use of business papers, forms, and reports. All secretarial students should take this course as there will be a bookkeeping aspect to most jobs they will fill in offices. Students who plan to major in accounting should take this course no later than their junior year; however, sophomores who have a grade average of 86% or better may enroll as part of the superior student program which will allow them to enroll in the University of Nevada's accounting program during their high school senior year if they qualify. This course is required as a prerequisite to Advanced Accounting and Data Processing. Elective. Five periods per week for one year. One unit.

* Bookkeeping 3-4N: A course which covers corporation accounting and advanced accounting principles. Data Processing students should take this course concurrently if they have not already taken it. This course is required of 11th grade accounting students who hope to qualify under the superior student program which will allow them to enroll in the University of Nevada's accounting program during their senior year. Prerequisite: Bookkeeping 1-2N, 80% or better. Elective.

Five periods per week for one year. One unit.

Business Arithmetic 3-4N: A course designed for students planning careers in either merchandising, telephone or public utility systems, or data processing. Items covered include arithmetic processes and shortcuts, business problems, tax problems, and computer oriented-mathematics such as the binary number system, logic, statistics, validity checking, probability studies, etc. Prerequisite: Arithmetic grade average of 80% or better. Although not required, it is recommended that this course be taken prior to enrolling in business machines or data processing. Elective. Five periods per week for one year. One unit.

Business English 7-8N: A course designed to help the business student develop skill in the use of oral and written English pertinent to business with emphasis on business correspondence, original composition, and vocabulary building. Business ethics and relationships are analyzed and studied. Some attention is given to advertising, its consumer appeals and interpretations. Special emphasis will be placed on composing at the typewriter. Prerequisite: Senior standing and satisfactory completion of elementary typing. Elective. Five periods per week for one year. One unit.

Business Law 5N: The first semester of a two-semester block including Economics 6 which discusses law as it will later affect the individual in business and his own life. Consideration of problems and situations that render legal knowledge and good legal advice necessary represents an important phase of the course. Special emphasis is placed on the legal liabilities of individuals and the analysis of sales contracts, both short and long term. This course is recommended for students planning to major in business administration on the college level. Prerequisite: Recommended only for students with a general grade average of 80% or better. Elective. Five periods per week for one semester. One-half unit.

Economics 6N: Second semester of a two-semester block including Business Law 5 designed to promote a better understanding of the American economic system, its relation to the preservation of our American democracy, relationship to foreign economics, and the basic economic principles upon which it functions. This course is recommended for students planning to major in economics or business administration on the college level. Prerequisite: Recommended only for students with a general grade average of 80% or better. Elective. Five periods per week for one semester. One-half unit.

* Business Machines 7-8N: Instruction will emphasize posting and billing machine operations, duplicating and printing procedures, filing, and development of proficiency in the operation of the key-driven Comptometer, rotary calculators, and adding and listing machines. Students will receive instruction in the basic operation of key-punch equipment, and also in the use of voice-transcribing equipment, electric typewriters, and the preparation of stencils and duplicating masters. This course may be used as the concurrent related

course for enrollment in Work Experience 7-8. Prerequisite: Typing 1-2, 80% or better, and evidence of responsibility in the care of machines and equipment. Elective. Five periods per week for one year. One unit.

* Business Machines 7N: This is a one-semester course designed for students who cannot qualify for the Typing 1-2 prerequisite of 80% or better and, also, for the students who cannot incorporate a full year of business machines in their school program. Course offerings include the machines listed under Business Machines 7-8N, but the dictaphone and electric typewriter will be omitted for poor typists. Elective. Five periods per week for one semester. One-half unit.

Consumer Psychology 3N: The first semester of a two-semester block including Advanced General Business 4N designed to give the student insight into business psychology as it relates to the consuming public. This course is useful from a personal standpoint as well as a business standpoint and helps the student learn to buy wisely as well as sell wisely. Elective. Five periods per week for one semester. One-half unit.

Advanced General Business 4N: A one-semester course offered in the spring semester covering business principles, organization and management. Students learn about the many facets of the American marketing system including merchandising, financial management, production management, and personnel supervision. This course is recommended especially for students who plan to go into business for themselves. Elective. Five periods per week for one year. One unit.

Journalism 5-6N: A study of the principles of good journalism including writing, editing, proof reading, headline writing, and page makeup, as well as the responsible position which newspapers hold in a free world. Practical work on the school publications. Prerequisite: Concurrent or previous enrollment in a typing course and a recommended grade average of 80% or better in preceding English courses. Elective. Five periods per week for one year. One unit.

* Data Processing 7-8N: The theory section of a two-hour course designed to provide the student with an entry level skill in modern data processing systems used in business today. Principles of machine design and operation; and the relationship of data to the six elements of classification, arrangement, calculation, summarization, recordation, and the communication are stressed. The application of unit-record equipment to inventory control, sales accounting, payroll accounting, cash control, and keeping of books of account will be discussed with application studies made by the students. Prerequisites: Bookkeeping 1-2, 80% or better, concurrent enrollment in Machine Accounting 7-8N. Concurrent enrollment in Bookkeeping 3-4 and Business Machines is recommended.

* Machine Accounting 7-8N: The laboratory and practical experience section of the two-hour course above designed to provide the student with an entry level skill in modern data processing systems used in business today. Actual operation of unit-record equipment, electrical data processing equipment (including control panel wiring), and computer

operation will be covered. Prerequisite: Concurrent enrollment in Data Processing 7-8N. Elective. Five periods per week for one year. One unit.

NOTE: Data Processing 7-8 and Machine Accounting 7-8 qualify as the first year of a three-year technical training program offered by the Washoe County School system in conjunction with the Adult Education Division of the Nevada State Board of Vocational Education. Satisfactory completion allows the student to enroll in Data Processing Technical Training in the adult evening school program.

* Salesmanship 5-6N: A course dealing with creative selling and personal development. Also, the use of display and packaging in stimulating sales is covered. Effective business speech is stressed from the standpoint of radio and television advertising also. This course is a required prerequisite for students enrolling in Work Experience, Merchandising 7-8. Elective. Five periods per week for one year. One unit.

Merchandising 7-8N: A course designed to acquaint the students with all phases involved in the merchandising of goods or services. Fields covered include business management, pricing, stock control, retail arithmetic, and other areas related to establishing one's own business or managing a business for others. This course is required to be taken concurrently by those students enrolling in Work Experience, Merchandising 7-8. Elective. Five periods per week for one year. One unit.

* Office Practice 7-8N: A course designed to orient the

student to office management and office procedure. Practical work in handling different types of office jobs is included as the class is conducted in the business machines laboratory. Also, individual instruction will be given those students who need additional skill in certain areas. This course is required to be taken concurrently by those students enrolling in Work Experience, Office Practice 7-8. Such work experience students should be business major primarily. Prerequisite: Permission of Business Department chairman, senior standing, and completion of Typing 1-2N. Elective. Five periods per week for one year. One unit.

Shorthand, Beginning 5-6N: A course covering a detailed study of Gregg Shorthand fundamentals. Elective to junior or senior students with an English grade average of 80% or better. It is recommended that the students enroll in their junior year so that they may continue in their senior year and develop a vocational skill. Prerequisite: Enrollment in or completion of beginning typing. Elective. Five periods per week for one year. One unit.

* Shorthand Junior 5-6 and Shorthand Senior 7-8: An intensive shorthand and transcription course for senior students enrolling in shorthand for the first time. Designed for those students who seek to develop a vocational skill in one year, and are willing to cope with a heavy homework load. Prerequisites for this special two-hour course include a minimum English grade average of 80%, Typing 1-2 80% or better. Elective. Ten periods per week for one year. Two units.

* Shorthand Senior 7-8 and Transcription Senior 7-8: A two-

hour course which represents a continuation of beginning Gregg shorthand with greater concentration on the fundamentals and mastery of shorthand skills. Dictation speed developed from 80 to 140 words per minute. The course is designed to give the student vocational competence and a knowledge of office procedures as well as a review of fundamentals in typewriting, spelling, composition, and punctuation. Also included is stress on personality traits, grooming, business ethics, co-worker relationships, and general business requirements. This course is required to be taken by those students enrolled in Work Experience, Stenographic 7-8. Prerequisite: Permission of Business Department chairman required. Elective. Ten periods for one year. Two units.

NOTE: Students who have taken Personal Typing or College Skills and decide to enroll in Typing 1-2N will receive only one-half unit of credit because beginning typing instruction is duplicated. Personal Typing and College Skills cannot be substituted for Typing 1 (first semester) because the approach is vocational rather than personal use.

* Typing 1-2N: A course with emphasis on business typing. Designed for students interested in business as a career, the course can be useful to all students, giving the student a knowledge of the typewriter and its effective use, establishes correct techniques of machine operation, teaches proper care of the typewriter and acquaints the student with business forms and procedures. Evidence of responsibility in the care of machines and equipment is required. Elective. Five periods per week for one year. One unit.

* Typing 3-4N: A course with emphasis placed on business correspondence, legal typing, original composition and vocabulary building, and office problem-solving projects. This course may be used as the concurrent related course for enrollment in Work Experience, Clerical 7-8. Prerequisite: Satisfactory completion of Typing 1-2 and permission of Business Department chairman.

* Work Experience, Merchandising 7-8N: This course provides school credit for those students desiring paid work experience in merchandising positions in sales or service industries. A teacher-supervisor is appointed as a special job counselor whose function will be to work with the student's employer to plan a comprehensive work experience program so that, where feasible, the student will experience all phases of merchandising. Occupational fields covered include apparel merchandising, hardware, food, grocery, service station, sportswear, sporting goods, advertising, and other areas where goods or services are sold. The actual jobs usually involve selling, stock work, and cashiering. Prerequisite: Concurrent enrollment in Merchandising 7-8, permission of Business Department. Satisfactory record of attendance and punctuality is required. Elective. One unit.

* Work Experience, Office Practice 7-8N: This course provides school credit for those students desiring paid work experience in office positions. A teacher-supervisor is appointed as a special job counselor whose function will be to work with the student's employer to plan an educational job-training program and to work with the student in overcoming possible deficiencies

and/or building better job and work traits. Job fields cover insurance, banking, retailing, legal and miscellaneous offices such as telephone answering, receptionist, etc. Prerequisite: Concurrent enrollment in Office Practice 7-8N and permission of Business Department chairman. Elective. One unit.

Home Economics:

* Job Training in Home Economic Skills 5-8N: A course designed to give the student training toward employment in Home Economics related businesses. Areas of instruction will include training for childcare center aides, countergirls, waitresses, and housekeeping aids for motels, hotels, and institutions as well as vocational orientation and personal finance units. Elective. Five periods per week for one year. One unit.

Boys' Foods 3-8N: A study of food preparation techniques and nutrition of special interest to boys. The second semester will be devoted to meal preparation and meal service useful toward future employment in the food services area. Elective. Five periods per week for one year. One unit.

* Creative Foods 3-8N: The first semester will center about principles of food preparation and nutrition. The second semester will be given to meal management to develop judgment in meal planning and marketing and to stimulate efficient use of time and energy. Elective. Five periods per week for one year. One unit.

* Creative Clothing 3-8N: A course designed for the student who has special interest in and aptitude for clothing. Con-

struction techniques will be taught in the medium of cotton, followed by woolen and silk or synthetic fabrics. Limits of projects will be determined by the student's sewing ability and creative initiative. Elective. Five periods per week for one year. One unit.

* Advanced Clothing (Fashion and Merchandising) 5-8N: A course designed for the advanced student who has a special interest in clothing and textiles. Information on selection and taking care of clothing will be given as well as training in merchandising and modeling. Construction of special garments on challenging fabrics will be individually determined by student interest and ability. Elective. Five periods per week for one year. Prerequisite: Creative Clothing. One unit.

* Advanced Foods (Food Service) 5-8N: The training included in this class will prepare students to enter that family of occupations related to food service operations found in hotels, restaurants, clubs, and hospitals, etc. Instruction on quantity cookery, use of institution size equipment, and specific background training for chefs, short-order cooks, food checkers, and purchasing assistants will be included. Elective. Prerequisite: Creative Foods, Boys' Foods, or Department chairman approval. Five periods per week for one year. One unit.

Industrial Arts:

Auto Mechanics 1-2N: An introductory course in the use of tools, equipment and machines. Basic principles and theory of automotive components are studied, how they operate, how to service and repair them. Actual instruction is given on engines after completion of safety tests. Efficient work habits are developed; practical problems are solved. Prerequisite: Industrial Mathematics or Algebra (may be taken concurrently). Elective. Five periods per week for one year. One unit.

* Auto Mechanics 3-6N: A continuation of the beginning course in auto mechanics with more advanced training in the use of tools, machines, service and repair of automobile equipment. Prerequisite: Auto Mechanics 1-2. Elective. Five periods per week for one year. One unit.

Electronics 1-2N: The first course of a three-year program in electronics. Attention is given to electronic and electrical phenomena with practical knowledge gained through experiments and projects in the laboratory. Resistance, capacitance, inductance, AC and DC and vacuum tubes are mong the areas covered. Prerequisite: Algebra 1-2 or Industrial Mathematics 3-4, 80% or better, (must have been completed prior to enrollment in this course). Elective. Five periods per week for one year. One unit.

* Electronics 3-6N: A continuation of Electronics 1-2 with a detailed study of oscillators, amplifiers, and practical hard-tube and solid state circuitry. Oscilloscopes, signal generators, sweep generators, and other test equipment will be studied and used in the laboratory. The average or above average student should be able to pass the Second Class F.C.C. license examination upon completion of this course. Prerequisite: Electronics 1-2. Elective. Five periods per week for one year. One unit.

Industrial Mathematics 1-2N: A course designed to give students the mathematical skills necessary to perform most computations required in industrial arts courses. A review of basic computations, a study of measurements and measurements systems, followed by elements of algebra and trigonometry, with time devoted to the use of the slide rule. This course or its equivalent must precede or be taken concurrently with all industrial arts courses. Elective. Five periods per week for one year. One unit.

Drafting 1-2N: A course to train the student in the language of industry. Standard rules of drafting and instruction of drafting tools and equipment will be used. Problems in lettering, geometrical construction, dimensioning, sectioning, auxiliary view, revolutions, shop drawing, blueprint reading, and shape description will be studied. Prerequisite: Industrial Mathematics or Algebra (may be taken concurrently). Elective. Five periods per week for one year. One unit.

* Drafting 3-6N: An advanced course in drafting. Instruction given in blueprint reading, advanced projection, detail drawing, and pattern projects. Prerequisite: Drafting 1-2. Elective. Five periods per week for one year. One unit.

Metal Fabrication 1-8N: A course designed for students interested in all areas of metal fabrication. Safety test required. Elective. Five periods per week for one year. One unit.

Woodworking 1-4N: An introductory course in woodworking. Designing of projects and the care and maintenance of tools and equipment is stressed. Safety test is required. Elective.

Five periods per week for one year. One unit.

Woodworking 5-8N: This course is specifically designed for those students who wish to increase their proficiency with woodworking tools and power equipment. Prerequisites: Mechanical Drawing 1-2N, Woodworking 1-4N, and Industrial Math or equivalent. Elective. Five periods per week for one year. One unit.

NOTE: The courses listed above for each of the three senior high schools are those being offered in the current school year (1967-1968). A committee of senior high school principals has developed a uniform approach for the school year, 1968-1969. Starting then, all courses in all senior high schools will have uniform course titles, course numbers (if needed), and course descriptions; and each school's handbook will contain identical information concerning all senior high school courses offered. If certain courses are offered only at specific schools (as may be possible with some occupational-vocational or technical courses), the name of the schools offering such a course will be listed after the course title.

Adult Education

I. Apprenticeship Programs

Brickmasons - A three year program involving the building of corners and walls and fireplaces, preparing and using basic drawing, reviewing of building codes and preparation of estimates.

Carpenters 1st Year - The first program of a series of four which deals with tools, materials, foundations, exterior finishing, rough framing, and first aid.

Carpenters 2nd Year - The second program of a series of four dealing with interior trim and cabinet making, stair building, rough framing, and first aid.

Carpenters 3rd Year - The third program of a series of four dealing with blueprint reading, estimating and first aid.

Carpenters 4th Year - The final program of a series of four dealing with reinforced concrete and timber construction, welding and first aid.

Electricians 1st Year - The first program of a series of four with instruction in job information, mathematics, theory, and code and blueprints.

Electricians 2nd Year - The second program of a series of four with instruction in job information, mathematics, theory, the code and blueprints.

Electricians 3rd Year - The third program of a series of four with instruction in job information, mathematics, code, theory, blueprints, and motor control.

Electricians 4th Year - The final program of the series of four with instruction in job information, orientation, electronics, code, blueprints, and motor control.

Operating Engineers - A six semester course with instruction in apprenticeship standards, safety and first aid, elementary grade setting, heavy equipment and its uses, internal combustion engines, heavy duty equipment operation, and special control systems.

Painters - A six semester course with instruction in materials, exterior painting, brushes (their uses and care), mathematics for the painting trade, color, stencil design, surface preparation, painting equipment, strippling and glazing, graining and marbleizing, lining and striping, metallic paints, bronzing and gilding, metal leaf, wood finishing, wall coverings, wall washing, and starching painted surfaces.

Plasterers and Cement Masons - A year course with instruction in the cement mason and his trade; mathematics as applied to the cement mason's trade; identification, use and care of masonry tools and materials; plan reading and estimating; finishing concrete surfaces; and specialized jobs.

Plumbers 1st Year - The first year course with instruction in the use and care of hand tools; the use and care of pipe machinery; installation of waste, soil, sewage and vent piping.

Plumbers 2nd Year - The second year course with instruction in waste, soil, sewage and vent piping, instruction in the installation of hot and cold water (domestic) and related math.

Plumbers 3rd Year - The third year course with instruction in installation of lead and copper piping, installation and setting of fixtures, and welding.

Plumbers 4th Year - The fourth year course with instruction in blueprint reading and drawing, heating, hydraulics, refrigeration, and building code.

Plumbers 5th Year - The fifth year course with instruction in related math, level and transit, building code and a general review.

Sheetmetal Workers - An eight semester course involving drafting of increasing complexity, blueprint reading, layouts of actual heating and air conditioning systems.

Sign Hangers - A one year course including basic principles of direct and alternating current theory, basic math and basic arc and gas welding.

Ironworkers (Welding) - Part of a three year program with instruction in arc and gas welding including overhead, vertical and horizontal welding.

Ironworkers (Theory) - Part of a three year program with instruction in structural steelwork, reinforcing, rigging and care and use of hand tools.

Roofers - A program with instruction in general characteristics built-up roofing, insulation and temperature control, steep roofing, metal roofing, reroofing and repairing, plastics for roofing, effects of building movement on roofing, roof drainage, and estimating.

II. Licensed Practical Nursing Program

Washoe Western School of Practical Nursing - A 50-week course with a minimum of 600 hours of instruction in basic nursing skills, ethics, nutrition, body structure and function, medical and surgical nursing, mother and baby care, care of children, care of the aged, personal and community health, pharmacology, mental disorders, rehabilitation; and 1100 hours of related clinical experience.

St. Mary's School of Practical Nursing - A 50-week course with a minimum of 600 hours of instruction in basic nursing skills, ethics, nutrition, body structure and function, medical and surgical nursing, mother and baby care, care of children, care of the aged, personal and community health, pharmacology, mental disorders, rehabilitation; and 1100 hours of related clinical experience.

III. Health Occupations Program

Surgical Technician - A course of approximately six months with instruction in anatomy and physiology, aseptic technic, terminology, problem solving, microbiology, medical-legal implications.

Nurses Aide Training - A 12 week course with instruction in the role of the nurses aide, introduction to patient care, temperature, pulse and repiration, moving and transferring patients, elimination, the bed bath, food and fluids, admission and discharge of patients, morning and evening care, housekeeping tasks, environmental factors, and advanced procedures.

Pharmacology for Licensed Practical Nursing - A 60 hour post-graduate course for L.P.N.'s which will better qualify them to administer medications. The course will give them a better understanding of usual doses, desired effects, and undesirable side effects of commonly used drugs. They will learn methods of administration and safety measures in handling drugs.

Diet and Nutrition for Licensed Practical Nursing - A part of the Licensed Practical Nursing program with instruction in the introduction to food and nutrition, the nutrients, practical planning for good nutrition, and diet therapy.

Medical Assistants - A 60 hour course with instruction in physical therapy, EKG, EEG, laboratory and X-ray.

Home Health Aide - A 9 month program with instruction in the definition of home health aid, understanding the medical and social needs of those served, personal services, cleaning and care tasks in the home, nutrition, and mother and baby care.

IV. Manpower Development Training Program

Data Processing - A course of approximately 1,130 hours with instruction in introduction to data processing, systems development and design, unit record operation, computer programming, accounting, business English and communications, business principles and organization, business math and statistics, and work experience.

Transcribing Machine Operator - A course of approximately 420 hours with instruction in typing, transcribing machine operation and office procedure, and English improvement.

Clerk-Typist - A course of approximately 600 hours with instruction in typing, math (business and basic), English (basic and business), office practice, office machines, and record keeping.

Medical Record Clerk - A course of approximately 840 hours with instruction in typing, transcribing machine operation, personal development, ethics, business math, office practice, business English and communication, medical terminology, spelling, records, and clinical experience.

Bookkeeping Machine Operator - A course of approximately 300 hours with instruction in bookkeeping, the bookkeeping machine, business machines.

Individual OJT - A course with related instruction in shop mathematics, blueprint reading, and basic English.

Medical Assistant - A course of 1080 hours with instruction in typing, record keeping, office practice, business English, first aid, personal adjustment and human relations, personal hygiene and grooming, ethics, sterile techniques, terminology and anatomy, laboratory technique, advanced business education and clinical experience.

Multiple Office Occupations - A course of approximately 1290 hours with instruction in typing, shorthand, English, office machines, office practice, transcribing machine operation, office record keeping, and clerical review.

V. Technical Education

Commercial Refrigeration and Air Conditioning - A course of 180 hours with instruction in the principles of refrigeration, shop work (relating principles), study of compressors, and their controls, study of metering devices and superheat, and study of condensers.

Domestic Refrigeration - A course of approximately 180 hours with instruction in fundamentals of basic electricity and refrigeration for a working knowledge necessary in the maintenance and repair of domestic refrigerators.

Communications Circuits - A course of 360 hours to prepare students for the examination for a Second Class Commercial F.C.C. Radio License. The course will include instruction in basic concepts and DC circuitry, fundamentals of AC and AC circuits, vacuum tubes and semi-conductors, basic electronic circuits and systems, and advanced electronic technology.

Drafting - A one year course divided into two semesters with instruction in standard mechanical drawing room habits, freehand sketching and shading, introduction to and proper use of equipment, lettering, geometric construction, dimensioning, introduction to theory of shape description and orthographic projection, sectional drawing, auxiliary views, revolution drawings, screw threads, isometric drawing, two-point perspective, and drawing reproduction.

Key Punch Training - A 15 week course with instruction in orientation to data processing and key punch equipment, and instruction in the operation of the key punch simulator, 026 key punch machine, IBM verifier, and the NCR 33 with key punch attachment.

Intermediate Data Processing - A 27 week course with instruction to enable a student to qualify as a tabulating or unit record machine operator. Student learns the operation of the sorter, collector, reproducer, tabulating or accounting machine, and related data processing equipment, and also they learn the wiring of the above machines.

Introductory Computer Programming - A 16 week course with instruction in basic concepts of logic, utility program, assembly programs, construction of the block diagram, expansion of the block diagram, unification of the diagram with program instruction, absolute programming, symbolic programming, and debugging.

VI. Office Occupations

Typing - A two year course divided into four semesters with instruction in the basic skills of typewriting and further development of speed and accuracy and manuscript typing.

Stenoscript - A semester course with instruction in the ABC system of shorthand (use of letters of the alphabet instead of symbols). The average student can attain 80-90 words per minute or more in one semester.

Shorthand - A two semester course with instruction in theory, review and reinforcement, dictation, speed building and pre-transcription training.

Legal Secretary - A two semester course with instruction in getting a job in a law office, domestic relations actions, corporations and bankruptcy, collections, filing and correspondence, wills and powers of attorney, personal injury actions, criminal law, real estate, the courts and their functions, and employment applications.

Civil Service Preparation - A 10 week course with instruction in grammas, punctuation, capitalization, vocabulary, spelling, arithmetic, business information, tests of aptitude, typing and employment.

Business Machines - A one or two semester course with instruction on the operation of the ten-key and full-key adding machines, calculators, bookkeeping machines, electric typewriters, and filing.

Business Law - A one semester course with instruction in law and legal problems, contracts, bailments, buyer and seller in sales contracts, and employer and employee in contracts of employment.

Business English - A one semester course with instruction in vocabulary, mechanics of English, oral expression, writing, and techniques of good listening.

Bookkeeping - A two year program with instruction in introduction to elementary double-entry bookkeeping, including the use of business papers, forms, and reports.

PBX Operator - A program designed to instruct the student in the correct procedures of the switchboard operation (both receiving and placing calls) and the human relations factor.

Stenograph - A program designed to instruct the students in machine shorthand. The machines for the course will be furnished by the school; however, students who enroll should plan to purchase their own machine following completion of the course.

Hotel Cashiering - Tabulating hotel bills, credit card invoices, and other guest accounts is taught in this program. It includes instruction in the use of automated machinery for determining and auditing totals.

VII. Distributive Education

Checker-Cashier - A 30 hour course with instruction in training on cash registers, checking procedures, computer scale, bagging procedures, basic math, stocking procedure and store operation.

Salesmanship - A 16 hour course with instruction in the role of the salesman, human relations in selling, product knowledge, buying motives, sales presentations, methods of management and sales, and advertising and display.

Auto Casualty - A course of 25 hours with instruction in third party vs. two party liability, negligence law and standard of conduct, terms and general information, personal liability, farmers personal liability, O.L.T. policy, M & C policy, storekeepers policy, comprehensive general liability policy, glass policy, family auto policy, basic auto policy, miscellaneous covers, and rating and rating procedures.

Fire Insurance - A 25 hour course with instruction in fire insurance contract, forms, rates, package policies, forms (provisional), losses, business interruption, endorsements, increases, and decreases.

General Insurance - A 10 session course with instruction in fire insurance, marine insurance, ocean insurance, bonds, and burglary, auto and casualty, glass and accident and health, aviation and boiler and machinery, rain, war, and compensation, water damage and livestock insurance.

Life Underwriters - A two part course with instruction in law, trusts, and taxation; and fundamentals of life and health insurance.

VIII. Trades and Industry

Welding, Basic - A 12 week course with instruction in oxy-acetylene and electric arc welding, emphasis on set-up and operation of the units, welding preparation, and welding techniques.

Welding, Advanced - A 12 week course with instruction in oxy-acetylene and electric arc welding, emphasis on vertical, horizontal, overhead, pipe and non-ferrous welding.

Auto Electricity - A one semester course with instruction in fundamentals of electricity and magnetism, service and construction of batteries, automotive ignition systems, generators, starters and switches, regulators, and alternators.

Auto Engine Tune-up, Basic - A one semester course with instruction in theory and on-the-car demonstration including basic engine operation, tune-up procedures sequence, compression checking methods, spark plug service and replacement, batteries and cables, electrical terms relating to meter connections, cranking motor circuit, ignition system, fuel system, and charging circuit; and complete tune-up procedures.

Auto Engine Tune-up, Advanced - A one semester course with instruction of basic fundamentals, tear-down of various models, explanation of circuits, rebuilding of various models, and discussion of service problems and trouble shooting.

Household Appliance Repair - A 60 hour course with instruction in the maintenance, repair, theory, diagnosis and repair of household appliances.

IX. Homemaking

Cook Training - A two section course including instruction in sanitation, equipment, care of food, food preparation, and serving.

Custom Dressmaking and Tailoring - A one semester course with instruction in equipment, personal measurements, review of pattern alterations and curring, pressing, fitting problems, psychology used on customer, workshop, and shortcuts to make sewing fun.

PART IV

EMPLOYMENT OPPORTUNITIES FOR WASHOE COUNTY YOUTH

As a separate part of this project, a survey of vocational-technical needs was made within Washoe County. Questionnaires (Appendix G) were sent to all of the trade unions which maintain organizational headquarters with the county. Separate questionnaires were also sent to all local employers. The names of both the unions and the business enterprises were obtained through an office of the Employment Security Department.

The results of this survey were somewhat disappointing - an outcome perhaps ascribable to numerous factors. While the instruments employed may not have been the most effective for capturing the data sought, it also developed that only a small proportion of the unions and the businesses returned them. Of 24 unions queried, only nine responded, a number barely greater than 33 per cent. From the 290 businesses to which questionnaires were sent, only 122 replies were received. This last figure represents an approximate 40 per cent return. Even these returns could have been useful for tabulating data except that nearly all questionnaires received were but partially completed. It is altogether likely that this last circumstance was due to inadequately designed instruments. However, after much study it was decided that no meaningful information could be gleaned from this series of questionnaires and they were, consequently, for purposes of this report, set aside.

Fortunately, the investigators were not entirely dependent upon the unions and the employers themselves for information about their practices. Unlike the information which was sought on past and present students, where only the schools could provide the basic data, information relating to business and employment practices can be obtained from several other reliable sources. The Employment Security Department, most notable among the sources of such information, has a continuing series of research projects under way which catch the changing pulse of the business and employment world. Further, the Governor has recently appointed a commission which has made a statewide manpower study of considerable relevance to the problems at hand. Also available are various regional studies of employment practices and related trends affecting work-skill needs which have applicability to the employment situation in Washoe County and the surrounding areas. Various federal inquiries are also available and, by pooling information from these different sources, it would appear that a more accurate picture could be obtained of vocational and employment factors than through reliance on the locally initiated surveys conducted by the University's Research Coordinating Unit.

Perhaps the single most comprehensive study of Nevada manpower needs now available is the analysis completed in November, 1967 by the Employment Security Department of the State of Nevada entitled "Nevada Manpower Information, 1967-1975."*

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*Nevada Manpower Information, 1967-1975, Manpower Information and Research Section, Carson City, Nevada (November, 1967).

This study consisted mainly of an employer survey prepared in conjunction with the Governor's Manpower and Economic Development Conference. Both state and county-wide samplings of employers were carried out in a very comprehensive analysis. Returns were requested at the personal urging of the Governor and were received in greater proportion than in nearly any other comparable analysis ever undertaken in Nevada. Without attempting to review this detailed report in full, it does seem proper to include from this project two tables which are especially relevant.

Table 59, taken from the report cited above, shows the 1966 employment projections in Washoe County to the year 1970 and on to 1975. All categories show increases both between now and 1970, as well as between 1970 and 1975. One of the more marked increases is forecast in mining and general manufacturing. Both of these forecasted employment growths suggest the need for a great variety of applicable vocational and technical skills. Other categories of particularly rapid growth are in the fields of construction and services, including hotel and restaurant functions. Forecast also is a considerable increase in government positions, including personnel in federal, state, and local agencies. This growth will create a special demand for office and clerical skills. In most instances, the long range picture looking toward 1975, is an accentuation of what is forecast for the next two years. The demands within the county alone appear to be quite general, requiring the development of a large array of vocational and technical skills.

TABLE 59

WASHOE COUNTY
1966 EMPLOYMENT AND EMPLOYER PROJECTIONS TO 1970 AND 1975

INDUSTRY	EMPLOYMENT 1966	PROJECTIONS 1970	PROJECTIONS 1975	PER CENT CHANGE FROM 1966 TO 1970	PER CENT CHANGE FROM 1966 TO 1975
TOTAL NON-AGRICULTURAL	45,800	53,500	60,100	17	31
Construction	3,600	4,400	5,300	22	47
Mining & Manufacturing	2,400	3,200	3,700	33	54
Trans., Comm., & Pub. Util.	4,400	4,700	5,100	7	16
Trans. ex. railroads	1,500	1,700	2,000	13	33
Communications & Utilities	2,200	2,400	2,500	9	14
Trade	10,000	10,600	11,700	6	17
Wholesale trade	2,400	2,700	3,000	13	25
Retail trade	7,600	7,900	8,700	4	14
Finance, Ins. & Real Estate	2,400	2,900	3,300	21	38
Service & Miscellaneous	14,700	17,600	18,800	20	28
Hotels	1,900	2,100	2,100	11	11
Amusement & recreation	8,000	10,000	10,700	25	34
Other service & misc.	4,800	5,500	6,000	15	25
Government	8,300	10,100	12,200	22	47
Federal	1,900	2,200	2,700	16	42
State & local	6,400	7,900	9,500	23	48

Note: Employment for 1966 is the annual average taken from the monthly reports of the Current Employment Statistics Report, Employment Security Department.

Table 60 shows the same kind of information as does Table 59, but on a state-wide basis. Again, all areas show an increase without a single area suggesting a decline in employment. The forecast seven years from now tends to be an enlarged picture of the forecast for the next two years. Construction, manufacturing, and government work situations are expected to expand with great rapidity, placing a large demand upon the training facilities throughout the entire state for technical and vocational skills.

In a later section of this report an effort will be made to translate these general employment trends into specific job skills and work situations. At this point, however, it is perhaps appropriate to broaden the view and look at national projections for employment. This last requirement is dictated by the high mobility of today's young worker. It is now not enough to train a person for work in his own county or even within his own state, since upon severing ties with formal educational institutions, individuals tend to scatter in all directions and for considerable distances, whereupon their need for entry into the labor market is no less acute.

A report issued by the U. S. Department of Labor in March, 1966 presented the projected employment by industry division to the year 1970 on a nationwide basis. Like the Nevada and Washoe County projections, nearly all categories showed projected increases. However, unlike Nevada and Washoe County, the nationwide trends pointed to more moderate employment

TABLE 60

STATE OF NEVADA
1966 EMPLOYMENT AND EMPLOYER PROJECTIONS TO 1970 AND 1975

INDUSTRY	EMPLOYMENT 1966	PROJECTIONS 1970	PROJECTIONS 1975	PER CENT CHANGE FROM 1966 TO 1970	PER CENT CHANGE FROM 1966 TO 1975
TOTAL NON-AGRICULTURAL	162,200	192,200	212,800	18	31
Mining	4,000	4,600	4,600	15	15
Construction	9,300	11,900	13,700	28	47
Manufacturing	7,000	8,300	9,200	19	31
Trans., Comm & Pub. Util.	11,600	12,900	14,300	11	23
Trans. ex. railroads	4,100	4,800	5,700	17	39
Communications & Utilities	5,300	6,100	6,800	15	28
Trade	30,300	34,500	38,000	14	25
Wholesale trade	4,900	5,300	6,000	8	22
Retail trade	25,400	29,200	32,000	15	26
Finance, Ins. & Real Estate	6,200	7,600	8,700	23	40
Service & Miscellaneous	63,500	75,100	79,000	18	24
Hotels	20,000	22,900	23,500	15	18
Personal services	3,300	4,000	4,300	21	30
Amusement & recreation	19,700	25,600	26,500	30	35
Other service & misc.	20,500	22,600	24,700	10	20
Government	30,300	37,300	45,300	23	50
Federal	8,400	9,500	10,200	13	21
State & local	21,900	27,800	35,100	27	60

Note: Employment for 1966 is the annual average taken from the monthly reports of the Current Employment Statistics Report, Employment Security Department.

gains. On a national basis mining is expected to show a decline of about seven per cent, while in Nevada it will be gaining an expected 15 per cent. The most marked gains will be in service-related industries and government employment; two findings which are essentially consonant with the findings for Nevada and Washoe County. Nationally, the trend toward a decline in agricultural job opportunities gives every indication of continuing for some years to come.

The employment growth in most occupations will speed up considerably over the next half decade, according to the Manpower Report of the President quoted above. The demand for professional and technical workers will increase by 25 per cent. Clerical workers and service workers will be needed in numbers some 20 per cent greater than are presently in the work force. Managers, officials, and proprietors, along with craftsmen and sales persons will be needed in numbers 12 to 15 per cent greater than is presently the case. The need for operatives and non-farm laborers will increase slightedly and only farmers and farm workers will show a marked decrease in demand. One obvious conclusion from these general data is that training facilities of nearly every description are going to be hard-pressed to provide the labor market with the skilled workers needed to fill the job vacancies which will materialize in the next decade.

PART V

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

Discussion

A review of the foregoing sections of this report presses the investigators toward a number of conclusions and resulting recommendations which they feel the study warrants. It is conceded at the outset that others may see different meanings and implications in this same body of information. However, partly to place their own assessments in proper perspective and partly to involve a recognized expert in the field of vocational-technical education, it was decided to place all available information in the hands of an out-of-state consultant. Accordingly, Dr. Albert Riendeau, Dean, West Valley Joint Junior College, was invited to perform this service. He was provided with Parts I - IV of the study and, in addition, made two separate site visits to Washoe County during which he toured school facilities, interrogated the research staff, and met with school administrators and vocational-technical personnel. The conclusions and recommendations which follow, therefore, represent those areas of substantial agreement of the research staff, tempered and modified by the advice and counsel offered by Dr. Riendeau.

Conclusion

Vocational-Technical Education and the Holding Power of the Schools

The proportion of students in the Washoe County Schools who withdraw before graduation has neither risen nor fallen significantly during the years covered by this study. Neither was it observed that students from one of the attendance areas were more or less likely from a statistical point-of-view to remain in school than were students from another attendance area. What does seem clear is that throughout the county there is a small porportion of students who do not find the school environment satisfying or meaningful to them. This dissatisfaction is far more common to boys than to girls and expresses itself most frequently sometime during the tenth grade. It would, however, be incorrect to conclude that even radical changes in the vocational-technical offerings of the schools would completely reverse this pattern. Data does not warrant such a conclusion. Data does suggest, however, that some students who elect to terminate an educational experience having primarily an academic focus would find renewed interest in training programs with a greater vocational emphasis.

There is also evidence to suggest that some of the students who complete their high school program with neither episodes of failure nor periods of interruption would have pursued a vocational-technical curriculum with greater enthusiasm along with more personal satisfaction. It also seems clear that for some students nearing the mid-point of their high school program there is a marked flagging of interest and general motivation for formal instruction. These students, many of whom later seek out adult vocational-technical training, will reject outright any invitation to participate in such activities while they are high school students. For them, evidently, the need to cast off the restraints of years of adult supervision or simply the growing need to win their "freedom" completely transcends such practical goals as preparing themselves for the work-a-day world. The strides toward maturity which they subsequently make in the course of two or three years devoted to relatively ineffectual activities are not only greater than those brought about through formal instruction with that same aim, but are perhaps best reflected in the vigor they bring to training programs they later join as young adults. This last, of course, underscores the need to maintain and strengthen post-secondary and adult education curricula.

The Role of Vocational-Technical Education in the High School

The major error made by many people as they view the vocational-technical offerings of the modern high school is their presumption that graduation from high school should result in a finished vocational product, or that the student should proceed directly from the school to the office, the plant, or the factory as a full-time, fully trained worker. Virtually none of the authorities in the field of vocational-technical education share this view. One possible exception to this generalization would be in the field of business education.

Mainly they contend that this is not only expecting too much of the high school, but it is also expecting too much of 17 and 18 year old youths. Rather, the authorities agree, the high school should gear its vocational-technical program to occupational preparation.

The goal of occupational preparation aims at preparing students in a general way for successful introduction to employment or post-high school training. Successful introduction to employment does not require the new worker to be a skilled craftsman, but rather one who is acquainted in a broad way with the work requirements of his field, has a genuine willingness to work, and a receptive attitude toward learning the necessary skills. As in years past, employers continue to place a high value upon the basic educational fundamentals of reading, writing and computing for their new recruits. It appears true that in the vast majority of cases the employer not only views the 17 or 18 year old worker as too immature to shoulder the responsibilities typically assigned the craftsman, but moreover, prefers to offer the requisite specialized training in his own fashion.

The aims and objectives of the high school vocational-technical program should not be confused with those of a Community College or with Adult Education undertakings. The latter two, concerned as they are with young adults and older students, properly point toward developing readily marketable skills at above an entry level of proficiency. The vocational-technical aspects of the high school, by contrast, should devote itself largely to the grooming of the adolescent for a smooth and efficient introduction to the world of work.

Recommendations

Recommendation 1: Cultivating Positive Attitudes Toward Work

A point on which there is general agreement is that the young person just entering the labor market has a critical need to build his growing fund of skills on a firm foundation of positive attitudes toward work in general. While the Washoe County Schools sponsor Career Days and include social study units which touch on this objective, for most students such experiences are too few, too brief, and too scattered to have the impact that is required. In an era where complex professional skills are especially glamorized and occurring as it does in a University oriented community, the dignity and the desirability of the manual arts is all too often underemphasized, not infrequently disparaged, and many times altogether neglected.

What is needed is a concentrated program of occupational guidance which has its beginning in the elementary grades and which aims not only at imparting accurate information about numerous fields of work, but which nurtures attitudes of respect and admiration for all labor which contributes to the making of a better social order. Both the work and the worker should come to be more fully appreciated. Efforts to bring about such attitudinal changes require a daily emphasis not unlike that which is placed on care of property and individual integrity. Moreover, occupational guidance in the elementary grades should be closely articulated with complementary programs at the junior and senior high school levels. This objective is so important that it can no longer be left informally to the individual teacher to include as he or she chooses, but rather should be the direct responsibility of personnel specifically assigned at all school levels to the task of vocational guidance.

What also appears to be needed is the inclusion of an occupational guidance component into the overall curriculum plan for the entire range of public school grades. There are numerous models for such a component, but one of the most comprehensive available is that adopted by the Michigan Department of Education and reproduced on the following as Chart 1.

The Michigan model carries the concepts of vocational and occupational education from the early elementary grades, through the intermediate levels and high school years, on to the post-secondary and adult programs. It begins with planned instruction designed to give children in the lower grades an awareness of the occupational world. The junior high students' occupational interests are stimulated with exploratory and pre-vocational experiences. The high school student receives training, not in work specialties, but, rather, in occupational clusters. The post-high school and adult students are provided the specific training necessary to equip them for a particular job or, perhaps, to up-grade their present proficiencies, or to re-train them for new work careers.

CHART 1

A MODEL FOR AN INTEGRATED OCCUPATIONAL EDUCATION PROGRAM
(MICHIGAN DEPARTMENT OF EDUCATION)

	ELEMENTARY SCHOOL	EARLY SECONDARY	LATE SECONDARY	POST-SECONDARY	ADULT
Objective	To develop an awareness of the occupational world.	To stimulate occupational interest and provide exploratory and pre-vocational experiences.	To provide training for a "cluster" of occupations.	To provide specific occupational education and training.	To provide occupational training, upgrading and/or retraining.
Depth and Scope	General understanding with unrestricted exposure to all fields of work.	Acquaintance with many specific occupations. Opportunities for practical experiences.	Job-entry skills in occupational clusters. Counseling for career development.	In-depth training for specific occupations or an occupational cluster. Counseling for career development, continued.	Training for specific employment needs of individual. Job counseling for adults.
Number of Courses or Curricula	Integrated as part of total program.	Continue integrated program to provide separate courses which include experiences related to all fields of work.	11-15 clusters.	20-50. Many offerings will be dependent upon local demand.	Many (20-50) number of offerings will be dependent upon demand.

CHART 1 (CONT.)

	ELEMENTARY SCHOOL	EARLY SECONDARY	LATE SECONDARY	POST-SECONDARY	ADULT
Location of Instructional Facilities	Every elementary school.	Within every local junior and senior high school.	Local high schools and/or area centers.	Community colleges and state colleges and universities.	Local schools and/or area centers, community colleges and colleges and universities.

The heart of the Michigan model, however, or that of any similar effective model, is trained personnel to carry it through and carefully programmed time at every grade level to permit its proper presentation to students. This last can be done with maximum effect only if the vocational and occupational components are skillfully articulated with the on-going academic programs.

Recommendation 2: Occupational Testing and Guidance Center

As a means of achieving maximum benefit from a multi-dimensional occupational guidance program as above, the Washoe County Schools should establish an Occupational Testing and Guidance Center created on a par with its present counseling program. This new center should be staffed with persons specifically trained in occupational guidance. In this connection it should be emphasized that today's school counselors typically have little training in the field of occupational guidance. Most university counseling programs include little more than a single course in occupational information and many not even that. Clearly, to achieve expertise in this field requires considerable training and only those persons properly schooled in that discipline can offer the best occupational guidance to the youth of a community.

An Occupational Testing Center would address itself not only to the more obvious tasks of assessing occupational aptitudes and abilities, but would also work to bring these into better alignment with the student's self-concept and his aspiration levels. While schools for decades have been dedicated to helping each child realize his highest potential, there has been an insufficient amount of organized effort to assist some youngsters to set higher goals when their aptitudes warrant such a change and, likewise, there has been even less effort to encourage others to lower their sights when evidence suggests that they have set a course toward failure. A well staffed, well run Occupational Testing Center would be of particular benefit with such student problems.

Recommendation 3: On-The-Job Orientation of Counselors

Recognizing that many present school counselors will continue to serve as the primary source of occupational information for large numbers of students, a vigorous program of on-the-job orientation of counselors should be initiated at the earliest possible moment. This orientation should feature counselor visits to numerous employers providing a close study of the various job stations, their range of requirements and other factors of importance to convey to young people contemplating entry into that work area. Information reaching the writers of this report suggests that numerous employers would cooperate in such an undertaking and its execution would open still another important line of communication between the schools and the work-a-day world. Some employers have observed that a school counselor is often placed in the position of recommending that a student consider work in the culinary arts, for example, without that counselor ever having had even the briefest glimpse into the working of a major food operation. The same kind of ignorance may characterize a counselor's suggestion that a youngster consider a career in merchandising, in automotive repair, or in one of the health occupations. On-the-job orientation of counselors, then, aims at giving the counselor a first-hand view of occupations and a dynamic "feel" for the work involved which he could never achieve through the study of job descriptions and work manuals.

Recommendation 4: The Job-Cluster Concept

It is recommended that the Washoe County Schools re-examine their vocational-technical offerings with a view toward modifying them in a number of ways. First, if the premise is accepted that the high school should not strive to turn out a finished vocational product, then the current practices of students taking three years of auto mechanics or three years of woodworking become extremely questionable ones. If, rather, the high school should concern itself with offering exploratory occupational experiences, then one year should be an adequate amount of time in which to explore auto mechanics, or woodworking, or nearly any other work area. In some instances an adequate exploration may be completed in a single semester or less.

The recommended move for the late secondary student should be to provide instruction relevant to a "cluster" of closely related occupations. A report issued by the Rockefeller Brothers Fund underscored the advantages that an individual would enjoy if his high school vocational preparation were based on the cluster concept:

> In this day of technologies that become antiquated overnight, it is hazardous to predict a favorable future for any narrow occupational category. There will be economic advantage to the individual in acquiring the kind of fundamental training that will enable him to move back and forth over several occupational categories. Individuals so trained will find a market for their talents under most circumstances. Individuals more narrowly trained will be at the mercy of circumstances.*

Cluster courses in upper grades of high school should be designed so that the instruction given is basic to most of the occupations to be found within that cluster. The suggested 11 to 15 clusters of occupations that will be needed at this level should be determined by critically analyzing the commonalities among various occupations. Several research efforts have identified logical occupational clusters.

By way only of illustration the groups of occupations listed below appear to have much in common and do make for logical groups into job clusters.

1. Office occupations
2. Graphic communication occupations
3. Production agriculture and related occupations
4. Metal processing occupations
5. Construction occupations
6. Transportation service and repair occupations
7. Hospitality occupations
8. Health occupations
9. Distributive occupations
10. Electricity-electronics occupations
11. Family and community service occupations

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* Rockefeller Brothers Fund, The Pursuit of Excellence: Education and the Future of America, Panel Report V of the Special Studies Project of the Rockefeller Brothers Fund, Inc., New York: Doubleday & Co., 1958, p. 10.

It may be wise at this point to recall that the Dictionary of Occupational Titles lists 21,741 different occupations and, consequently, the 11 job clusters cited above scarcely form a complete or exhaustive enumeration. However, since the cluster concept tailors its training of high school students to cut across numerous jobs within each broad work area, it thereby opens a far wider spectrum of work situations to students than could possibly be achieved through narrow, single job specializations.

Recommendation 5: Advisory Committees for Vocational-Technical Programs

While the Washoe County Schools have made some use of advisory committees in their vocational-technical programs, (especially those now offered at night) it is strongly recommended that such relationships be extensively increased so as to blanket day programs, as well. In a technological society the demands of industries are in a constant state of flux and this makes the close partnership of educational institutions and the representatives of industry all the more necessary. Because occupational patterns change with technological developments, they can best be transmitted to the educator and thence on to the student by industry's own 'men-on-the scene.'

The most effective pattern for utilizing advisory committees would be to establish them on two levels. The first would be a General Advisory committee whose members would be drawn from all quarters of the employment and labor fields. This committee should deal with broad questions of policy and practice and should work to facilitate the schools' entry into and communication with all segments of the work and labor market. The second level is represented by the Occupational Advisory Committees which offer advice and counsel to the school administrators regarding instructional programs in specific trades, crafts, and occupations. One such committee should be formed in conjunction with each job cluster around which vocational training is to be offered.

In commenting on his visits throughout the country Dr. Riendeau stated, "The single ingredient which gives successful vocational-technical programs their greatest thrust is the appointment and vigorous participation of local advisory committees. Without them the best equipped and best staffed program will stutter to an ineffectual halt." He emphasized, however, that the work with such committees cannot be allowed to be an incidental part to an educator's major responsibility. Rather, since the effectiveness of the entire vocational-technical program could well be determined by both the quality and quantity of ties with advisory committees, the delegation of this function full-time to a single person would appear to be an extremely wise administrative decision.

Recommendation 6: Expanding the Use of Present Vocational-Technical Facilities

A final set of recommendations concerns the expanded use of present vocational-technical facilities. Though in theory students from one school may now take advantage of vocational-technical course offerings of another school not also offered at theirs, in practice this is rarely done. Steps should be taken to ease the educational logistics associated with inter-school enrollments so that this obviously laudable possibility becomes, instead, a frequent and genuine reality.

Other innovations toward increasing the flexibility of established vocational-technical facilities should also be encouraged. Because a large share of the district's vocational-technical facilities lie idle during the summer months and, likewise, because high school students during this same period often have many hours of free time, there should be a major push toward bringing both together for meaningful and productive training.

As suggested above, the need to re-examine the problems of scheduling and transportation as they touch on the use of one school's vocational-technical facilities by students from every quarter of the country has grown to the point where it clamors for immediate attention. Successful solution of these two problems will not only bring the high demand programs, such as data processing, to an even wider segment of students, but it will restore the low demand programs, such as graphic arts, to a level where their continuation is educationally justifiable.

A greater number of day students taking evening courses for credit is also clearly indicated. Likewise, the advantages of opening up day classes to post-high school and adult students seem far to outweigh any possible disadvantages.

Such mixing of older and younger vocational students in both day and evening classes not only more accurately mirrors the work force of the labor market, but frequently makes for a more efficient use of both facilities and staff. Additionally, the more serious and often better motivated older student is frequently able to convey the value of education and proper training to his younger classmates much more effectively than can the teacher of the counselor.

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APPENDIX A. FORM SENT TO DROPOUTS AND TO STUDENTS WHO GRADUATED

RESEARCH COORDINATING UNIT
UNIVERSITY OF NEVADA
RENO, NEVADA

May 10, 1967

Dear Former Washoe County Student:

Now that you have been gone from High School for some time, the University of Nevada, in cooperation with the Washoe County School District, would like your help in answering some important questions. Like many people in the community, we are sincerely searching for ways to improve our schools and we believe that your careful answers to the following questions will prove quite valuable to us.

We are sending these letters to a selected group of former students, which makes it even more important that each and every one is returned to us. It is not a lengthy form and most of those who have completed it have done so in less than 15 minutes. You'll note that we have included a self-addressed, stamped envelope. When you have finished your answers, please place the form in the envelope provided and drop it in a mail box.

When all the returns are in, we will send you a brief report of what we have learned. But, of more importance, we will use the information you and others give us to assist the Washoe County Schools to do a better job with the many students who will be coming each year.

As someone once said, "Everyone talks about the weather, but no one does anything about it." Sometimes it seems as though, "Everyone talks about the schools, but no one does anything about them." We feel that this little form gives you a chance to do something about your schools and we very much hope that you will do your part by completing it today and mailing it promptly back to us. Many thanks for your help.

Sincerely,

J. Clark Davis
Associate Professor
Director, Research
Coordinating Unit

SURVEY OF FORMER STUDENTS

ame: ______________________________

treet Address: ______________________

ity and State: ______________________

IRECTIONS: Skip any questions which do not apply to you, but make a check (x) beside the number of each question skipped to show us that you looked at it.

1. If your name and address is different from what appears at the upper left side of this page, please print it as it should be written on the following lines. If it is entirely correct check here: (   )

   Name: ______________________________

   Street Address: ______________________

   City and State: ______________________

2. Circle your present status: SINGLE MARRIED DIVORCED WIDOWED

3. If married or divorced, how many children do you have? ____________.

4. If you are now a "Mrs.", please write your married name above your name at the top of this page.

5. What are you doing now? (Check the one which best tells what you are now doing.)

   ___1. Working full time.
   ___2. Working part-time.
   ___3. Unemployed but looking for work.
   ___4. Unemployed and not looking for work.
   ___5. In school full time.
   ___6. In school part-time.
   ___7. In school and working part-time.
   ___8. In the service: Branch ______________________
   ___9. Other. Explain______________________________

6. While in high school, of those listed, from whom did you get the most help in choosing your life plan? Check one.

   ___1. Friends my own age.
   ___2. Teachers who were not my counselors.
   ___3. My counselors.
   ___4. I received no real help from high school, or parents, friends or teachers.
   ___5. Other (please explain)____

   ____

7. If you did not finish high school, check why you quit. Write "1" to the left of your first main reason and write a "2" to the left of your second main reason.

___ 1. Just no interested in school.
___ 2. Preferred work to school.
___ 3. School was too hard.
___ 4. I was doing failing work.
___ 5. I disliked a teacher or teachers.
___ 6. I disliked a subject or subjects.
___ 7. I felt I could learn more outside of school.
___ 8. I was expelled for breaking school rules.
___ 9. I needed money to help at home.
___10. I needed spending money for myself.
___11. My friends had quit school.
___12. I was pregnant.
___13. I was in ill health.
___14. My parents wanted me to quit school.
___15. I got married.
___16. I joined the service.
___17. Other: (Explain)____

____

8. I think my decision to quit school was a good one. Yes___ No _____

8a. Please state why you marked "yes" or "no":_____________________________

____

9. If I were advising a high school student today who had the same reasons for quitting as I had, I would advise him to quit.
Yes____ No____

9a. Please state why you marked "yes" or "no":_____________________________

____

10. How many full-time jobs have you held since leaving high school?
Circle one: 1 2 3 4 or more

11. If you are working, what is your Job Title? Be exact: ______________

____

12. What is your average weekly salary today before taxes are taken out? (Answers confidential). Check one:

___ 1. $15-25
___ 2. $26-35
___ 3. $36-45
___ 4. $46-55
___ 5. $56-65
___ 6. $66-80
___ 7. $81-100
___ 8. $101-120
___ 9. $121-140
___10. $141-160
___ 11. $161-180
___ 12. $181-200
___ 13. $201-220
___ 14. $221-240
___ 15. $241 or more

3. Is the work you are doing now what you thought you would be doing while you were in high school? Check one.

___1. I had nothing very definite in mind while attending high school.
___2. I am not doing work anything like I had in mind while in high school.
___3. I am doing work somewhat like I had in mind while in high school.
___4. I am doing work exactly or almost exactly like what I had in mind while in high school.

4. Do you feel satisfied with your present job concerning each of the following:

1. With the type of work	Yes ____	No ____
2. With your salary	Yes ____	No ____
3. With your chances for advancement or getting ahead	Yes ____	No ____

4a. If answer is "no" for any of these, please explain:

1. ______________________________
2. ______________________________
3. ______________________________

5. Check if you have had any of the following types of training since leaving high school:

___1. Beauty College
___2. Barber College
___3. Business College
___4. Correspondence Courses -- state type: ____________
___5. Apprentice Training -- state type: ____________
___6. Military Specialty Training -- state type: ____________
___7. Other Job Training -- state type: ____________

6. If you have attended or are now attending a school, college or university of any kind since leaving high school, write the name of the school and type of training.

1. Name of school ____________
2. Type of training ____________
3. If college, state major ____________

7. If you dropped out of the school just indicated (see item #16), check your main reason.

___1. Low grades
___2. Poor study habits
___3. No definite goal
___4. Marriage
___5. Took a job
___6. Not enough money to continue
___7. Health reasons
___8. Needed at home
___9. Other. Explain ____________

. For each of the activities or school functions listed below, check if you did not participate in them while in high school or, if you did participate in them while in high school, check the amount of help you've gained by participating in them.

	NEVER PARTI-CIPATED	LITTLE OR NO HELP	HELPED ME SOME	HELPED ME MUCH	BROUGHT ABOUT A GREAT CHANGE IN MY LIFE
1. Clubs					
2. Athletics					
3. Library					
4. Counseling					
5. Student Body or Class Officer					
6. Informal Chats With Teachers					

9. Do you believe high school could have helped you develop another skill or ability that you could use now? Yes____ No____

If "yes", name the skill or ability____

0. Do you believe your high school could have offered some course or subject that would help you now? Yes____ No____

If "yes" name the course or subject____

1. When you left high school would you have transferred to a vocational or a technical or a manual training high school if one had been available? Yes____ No____

If "yes" what course of training might you have studied? Please state:____

2. If there were a vocational or a technical or a manual training school in the community today and open to the public, would you enroll now? Yes____ No____

If "yes" what would you like to study? Please state: ________________

____

If "no" check why you would not be interested:

___1. Vocational or technical training would not improve my present work situation.
___2. I could not get away from job or home to attend classes.
___3. I could not afford to go.
___4. I feel I am too old to start learning all over again.
___5. Other reason (please state)____

____

. If you were advising a young person today who was enrolled in a high school exactly like yours and who was about to quit for reasons exactly like your own, would you try to steer him into a vocational or technical high school if one were available?

Yes____ No____

. Do you feel your high school career might have been more successful if you had gone directly to a Vocational/Technical high school (if one had been available) after leaving junior high school?

Yes____ No____

5. Since we are particularly interested in learning ways in which the schools could have helped you secure a better job or one that you would find more to your liking, perhaps you have some suggestions that would help the schools do this. We'd appreciate it if you would write these ideas on the following lines. Please don't think that your thoughts are not important -- this entire project is aimed at getting YOUR ideas.

MANY THANKS FOR YOUR ASSISTANCE

Please slip the questionnaire in the return envelope and mail back to us.

APPENDIX B. FORM SENT TO PARENTS OF DROPOUTS AND TO PARENTS OF STUDENTS WHO GRADUATED

RESEARCH COORDINATING UNIT
UNIVERSITY OF NEVADA
RENO, NEVADA

June 25, 1967

Dear Parent of a Former Washoe County Student:

The University of Nevada, in cooperation with the Washoe County School District, is engaged in an undertaking aimed at finding ways to improve the effectiveness of our schools. Though we have an imposing array of "experts" to whom we may turn for advice and counsel, we honestly believe that the parents of former students represent a rich source of ideas that has never been fully tapped. We are, therefore, asking that you take a few minutes of your time to complete the enclosed questionnaire.

It is our purpose to translate the suggestions we obtain from you and other parents into meaningful action within the schools so that they come closer to doing the kind of job which your experience with them would prompt you to recommend. After we have gathered information from many parents, we will send you a brief report of our findings.

Many thanks for your cooperation.

Sincerely,

J. Clark Davis

J. Clark Davis
Associate Professor
Director, Research
Coordinating Unit

JCD:js
Encl.

Research Coordinating Unit
University of Nevada
Washoe County School District

SCHOOL SURVEY

PARENTS OF FORMER STUDENTS

June 25, 1967

NAME:

STREET ADDRESS:

CITY AND STATE:

1. Please place a check mark ( ) to the right of the name, street address, and city and state above if each is correctly written for your son or daughter who is a former Washoe County high school student. If the name, street address or city and state is not correct for your son or daughter cross out the incorrect line and print to the right of it the correct information.

2. How many years did your son or daughter attend a Washoe County high school? ______________________________

3. Did he or she graduate from a Washoe County high school? __________

4. If he or she did not graduate, why did he or she quit? Place a "1" by the best reason. Place a "2" by the next best reason.

   ______1. Just not interested in school.
   ______2. Preferred work to school.
   ______3. School was too hard.
   ______4. Was doing failing work.
   ______5. Disliked a teacher or teachers.
   ______6. Disliked a subject or subjects.
   ______7. Felt he or she could learn more outside of school.
   ______8. Needed money to help at home.
   ______9. Was expelled for breaking school rules.
   ______10. Needed spending money.
   ______11. We (the parents) wanted son or daughter to quit.
   ______12. Quit to get married.
   ______13. Join the service.
   ______14. Other explanation. ______________________________

   ____

   ____

   ____

5. At the time my son or daughter quit school I thought it was a good decision. Yes ________. No ________.

6. Now I think my son or daughter's quitting school was a good decision. Yes ________. No ________.

. If answer to question no. 6 is different from answer to question no. 5, please explain: ______________________________

____

____

____

______________________________.

8. When your son or daughter was in high school did you feel the emphasis for preparing students to go on to college was about right? Check one.

   1. Emphasis on college preparation was not enough.
   2. Emphasis on college preparation was about right.
   3. Emphasis on college preparation was too much.

9. When your son or daughter was in high school, did you feel the attention given to vocational or technical training (sometimes called manual training) was about right? Check one.

   1. Attention to technical or vocational training was not enough.
   2. Attention to technical or vocational training was about right.
   3. Attention to technical or vocational training was too much.

10. Do you feel your son or daughter would have gained more in high school if he or she would have attended a technical training or vocational high school? Yes ________. No ________.

11. If you could have chosen to send your son or daughter to a technical training high school would you have done so at the time? Yes ________. No ________.

12. If you were choosing today would you send your son or daughter to a technical training high school? Yes ________. No ________.

13. Do you think a complete technical training or vocational training program can best be presented in a separate high school? Yes ________. No ________.

14. What kind of skills would you have been pleased to have your son or daughter learn had he or she attended a vocational or technical training high school? List three in your order of preference.

   1. ______________________________
   2. ______________________________
   3. ______________________________

15. Knowing your son or daughter's present earning capacity, do you believe it would have been increased had he or she spent his or her high school years in a technical training or vocational-technical high school? Check one.

   1. Technical training would have increased his earnings.
   2. Technical training would have decreased his earnings.
   3. Technical training would have no effect on his earnings.

If these questions have suggested some idea on your part, please jot it down on the following lines. Don't conclude that your ideas are not important. This entire study is aimed at getting YOUR ideas.

Now, please place this questionnaire in the stamped and addressed envelope and mail.

Many thanks for your assistance.

APPENDIX C. STUDENT CAREER INTEREST FORM

Student:

Washoe County School Board wishes to help you in considering careers. To do this, they have teachers, administrators, and the University of Nevada to present this short form to you. ow directions carefully.

N EXAMPLE LOOK AT FRED JOHNSON'S FORM.

ION 1. "NAME". Print your name at the top of Section 1 as Johnson, Fred did. START WITH YOUR LAST NAME FIRST. Then mark each letter in your name starting with your first initial in your last name in first blank column, second letter in your last name in second blank column, etc.

ION 2. "SCHOOL". Fred goes to Wooster High School so he marked WAW. Find the three letters for your school in the school code below and fill out this section.

School Code for Section 2

WAB	Billinghurst	WAE	Vaughn	WAL	Dilworth
WAA	Clayton	WAW	Wooster	WAS	Sparks High
WAG	Gerlach	WAT	Traner	WAJ	Sparks Jr. High
WAD	Swope	WAR	Reno	WAH	Proctor Hug

TION 3. "DATE OF BIRTH". Fred was born on April 7, 1949, so he filled out 04 (April), 07, and 49. Look at the month code below, find your birthday and complete Section 3.

Month Code for Section 3

01	January	05	May	09	September
02	February	06	June	10	October
03	March	07	July	11	November
04	April	08	August	12	December

TION 4. "CURRENT GRADE". Fred is in the 12th grade, so he made a mark in front of the 1 and a mark after the 2. Indicate your grade. If you are in grade 7, 8, or 9 mark 07, 08, or 09.

TION 5. "CAREER CHOICE MADE BY YOU IN GRADE". Fred started to think about his career in the 9th grade so he marked 09. Complete this section. If you don't know, or haven't really thought about this, make a mark on both sides of the "O".

TION 6. "AFTER SCHOOL PLANS". This section is very important. Fred feels he has to go to work, so he marked "yes". He also wants to attend a technical school so he marked "yes". Make one or more marks that apply to you.

TION 7. "FATHER'S JOB". Mark what your father does. Since Fred's father is a waiter, Fred found that #31 (in the list of occupations) should be marked. Look through these occupations. Find where your father's job is listed and then mark that number.

TION 8. "MOTHER'S JOB". Mark this section following the same instructions as listed in Section 7 "Father's Job".

TION 9. "HELPED YOU IN YOUR CHOICE". Fred felt that one of his junior high teachers helped him most in considering possible careers. A counselor helped him some and his sister helped him none. Make at least three marks on your form in this section.

CTION 10. "CAREER CHOICES". Fred would like to be a physician so he marked 07 (from the list of occupations) as his first choice under "most desirable". Teaching (09) was his next "most desirable" choice. But Fred has not been a good student in school and he already has a part time job in the restaurant. Fred thinks he probably will become a chef or a mechanic. He marked 31 (for chef) for his 1st choice and 62 (for mechanic) under "realistic" choices. Take some time, pick out the 4 careers that fit you and mark them on your student career interest form.

CTION 11. Fred planned on attending a technical school so he marked "yes". You have different goals so you may want to answer "no" on this section. Listed below are a few examples of the fields of training that are offered in a vocational-technical school to give you an idea of what type of school this is. Complete this section, check the interest form and hand it in.

Vocational - Agriculture; auto body repair; auto mechanics; home economics; laboratory assistant; machinist; radio-tv repair.

Technical - Advertising; data processing; graphic arts; industrial physics & chemistry.

NEVADA RESEARCH COORDINATING UNIT

STUDENT CAREER INTEREST FORM

1

NAME

	J	O	H	N	S	O	N	F	R	E
A	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
C	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
D	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
E	☐	☐	☐	☐	☐	☐	☐	☐	☐	■
F	☐	☐	☐	☐	☐	☐	☐	■	☐	☐
G	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
H	☐	☐	■	☐	☐	☐	☐	☐	☐	☐
I	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
J	■	☐	☐	☐	☐	☐	☐	☐	☐	☐
K	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
L	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
M	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
N	☐	☐	☐	■	☐	☐	■	☐	☐	☐
O	☐	■	☐	☐	☐	■	☐	☐	☐	☐
P	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Q	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
R	☐	☐	☐	☐	☐	☐	☐	☐	■	☐
S	☐	☐	☐	☐	■	☐	☐	☐	☐	☐
T	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
U	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
V	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
W	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
X	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Y	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Z	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

2

SCHOOL

	W	A	W
A	☐	■	☐
B	☐	☐	☐
C	☐	☐	☐
D	☐	☐	☐
E	☐	☐	☐
F	☐	☐	☐
G	☐	☐	☐
H	☐	☐	☐
I	☐	☐	☐
J	☐	☐	☐
K	☐	☐	☐
L	☐	☐	☐
M	☐	☐	☐
N	☐	☐	☐
O	☐	☐	☐
P	☐	☐	☐
Q	☐	☐	☐
R	☐	☐	☐
S	☐	☐	☐
T	☐	☐	☐
U	☐	☐	☐
V	☐	☐	☐
W	■	☐	■
X	☐	☐	☐
Y	☐	☐	☐
Z	☐	☐	☐

3

DATE OF BIRTH

	Month		Day		Year	
0	■	☐	■	☐	☐	☐
1	☐	☐	☐	☐	☐	☐
2	☐	☐	☐	☐	☐	☐
3	☐	☐	☐	☐	☐	☐
4	☐	■	☐	☐	■	☐
5	☐	☐	☐	☐	☐	☐
6	☐	☐	☐	☐	☐	☐
7	☐	☐	☐	■	☐	☐
8	☐	☐	☐	☐	☐	☐
9	☐	☐	☐	☐	☐	■

■ Male ☐ Female

4

CURRENT GRADE

☐	0	☐
☐	7	☐
☐	8	☐
☐	9	☐
■	1	☐
☐	2	■

5

CAREER CHOICE MADE BY YOU IN GRADE

■	0	☐
☐	7	☐
☐	8	☐
☐	9	■
☐	1	☐
☐	2	☐

6

AFTER SCHOOL PLANS

	Yes	No
Go to work	■	☐
On the job training	☐	☐
Apprentice training	☐	☐
Trade school	☐	☐
Technical school	■	☐
Two-year college	☐	☐
Four-year college	☐	☐
Armed forces	☐	☐

7

FATHER'S JOB

0	☐	☐
1	☐	■
2	☐	☐
3	■	☐
4	☐	☐
5	☐	☐
6	☐	☐
7	☐	☐
8	☐	☐
9	☐	☐

8

MOTHER'S JOB

0	☐	☐
1	☐	☐
2	☐	☐
3	☐	☐
4	☐	☐
5	☐	☐
6	☐	☐
7	☐	☐
8	☐	☐
9	☐	☐

9

HELPED YOU IN YOUR CHOICE

	Most	Some	None
Parent	☐	☐	☐
Brother	☐	☐	☐
Sister	☐	☐	■
Principal	☐	☐	☐
Counselor	☐	■	☐
Teacher	■	☐	☐
Friend	☐	☐	☐
Literature	☐	☐	☐
Classes	☐	☐	☐
Other	☐	☐	☐

10

CAREER CHOICES

	Most desirable 1st		Most desirable 2nd		Realistic 1st		Realistic 2nd	
0	■	☐	■	☐	☐	☐	☐	☐
1	☐	☐	☐	☐	☐	■	☐	☐
2	☐	☐	☐	☐	☐	☐	☐	■
3	☐	☐	☐	☐	■	☐	☐	☐
4	☐	☐	☐	☐	☐	☐	☐	☐
5	☐	☐	☐	☐	☐	☐	☐	☐
6	☐	☐	☐	☐	☐	☐	■	☐
7	☐	■	☐	☐	☐	☐	☐	☐
8	☐	☐	☐	☐	☐	☐	☐	☐
9	☐	☐	☐	■	☐	☐	☐	☐

11

WOULD YOU GO TO A LOCAL VOCATIONAL-TECHNICAL SCHOOL? Yes ■ No ☐

NEVADA RESEARCH COORDINATING UNIT

STUDENT CAREER INTEREST FORM

NAME

1

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
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U
V
W
X
Y
Z

SCHOOL

2

A
B
C
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I
J
K
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P
Q
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S
T
U
V
W
X
Y
Z

DATE OF BIRTH

3

Month	Day	Year
0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

Male Female

CURRENT GRADE

4

0
7
8
9
1
2

CAREER CHOICE MADE BY YOU IN GRADE

5

0
7
8
9
1
2

AFTER SCHOOL PLANS

6

AFTER SCHOOL PLANS	Yes	No
Go to work		
On the job training		
Apprentice training		
Trade school		
Technical school		
Two-year college		
Four-year college		
Armed forces		

FATHER'S JOB

7

0
1
2
3
4
5
6
7
8
9

MOTHER'S JOB

8

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

HELPED YOU IN YOUR CHOICE

9

	Most	Some	None
Parent			
Brother			
Sister			
Principal			
Counselor			
Teacher			
Friend			
Books			
Classes			
Magazines			

WOULD YOU GO TO A LOCAL OR REGIONAL VOCATIONAL-TECHNICAL SCHOOL?	Yes	No

CAREER CHOICES

10

Most desirable 1st	Most desirable 2nd		Realistic 1st	Realistic 2nd
		0		
		1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		

APPENDIX D. OCCUPATIONAL CATEGORIES TO ACCOMPANY STUDENT CAREER INTEREST FORM

PROFESSIONAL, TECHNICAL, AND MANAGERIAL OCCUPATIONS

01 Occupations in Architecture and Engineering includes technicians, draftsmen and surveyors.

02 Occupations in Mathematics and Physical Sciences includes astronomy, chemistry, physics, geology, meteorology

04 Occupations in Life Sciences includes agricultural, biological, psychological, life.

05 Occupations in Social Sciences includes economics, political science, history, sociology and anthropology

07 Occupations in Medicine and Health includes physicians, osteopaths, dentists, veterinarians, pharmacists, registered nurses, dietitians, medical and dental technology

09 Occupations in Education includes university, secondary school, primary school, handicapped, home economists, vocational education

10 Occupations in Museum, Library, and Archival Sciences

11 Occupations in Law and Jurisprudence includes lawyers

12 Occupations in Religion and Theology includes clergymen

13 Occupations in Writing includes writers and editors, interpreters and translators

14 Occupations in Art includes commercial artists, designers, occupations in photography, painters, sculptors

15 Occupations in Entertainment and Recreation includes dramatics dancing, music, athletics and sports, entertainment and recreation

16 Occupations in Administrative Specializations includes accountants, purchasing, sales and distribution management, advertising, management

18 Managers and Officials, N.E.C. includes mining managers, construction managers, manufacturing managers, wholesale managers, finance managers, service managers

19 Miscellaneous Professional, Technical, and Managerial Occupations includes radio operators, sound recording, social and welfare work, airplane pilots, ship captains, railroad conductors.

CLERICAL AND SALES OCCUPATIONS

20 Stenography, Typing, Filing, and Related Occupations includes secretaries, stenographers, typists, personnel clerks, file clerks

21 Computing and Account-Recording Occupations includes bookkeepers cashiers, tellers, data-processing operators, computing-machine

22 Material and Production Recording Occupations includes production shipping and receiving, stock, weighers

23 Information and Message Distribution Occupations includes messengers, mail clerks, post office clerks, mail carriers, telephone operators, telegraph operators

25 Salesmen, Services, includes real estate and insurance, securities transportation, utilities

26
27 〉 Salesmen and Salespersons, Commodities includes horticultural, agricultural, foodstuffs, textiles, leather, paper and paper products, chemicals, fuel and petroleum, metal and metal products, hotel and restaurant equipment
28

SERVICE OCCUPATIONS

30 Domestic Service Occupations includes day workers, laundresses, housekeepers, maids
31 Food and Beverage Preparation and Service Occupations includes hostesses and stewards. waiters. waitresses, bartenders, chefs and cooks, meatcutters
32 Lodging and Related Service Occupations includes housekeepers, maids and housemen, bellmen
33 Barbering, Cosmetology, and Related Service Occupations includes barbers, manicurists, hairdressers, masseurs, embalmers
34 Amusement and Recreation Service Occupations includes gambling hall attendants
35 Miscellaneous Personal Service Occupations includes ship stewards pullman porters. hostesses and stewards, guides
36 Apparel and Furnishings Service Occupations includes laundering, dry cleaning, pressing
37 Protective Service Occupations includes firemen, policemen and detectives, sheriffs, military service.
38 Building and Related Service Occupations includes porters and cleaners, janitors

FARMING, FISHERY, FORESTRY, AND RELATED OCCUPATIONS

40 Plant Farming Occupations includes grain, cotton, vegetable, orchard-vineyard
41 Animal Farming Occupations includes dairy, poultry, livestock
43 Fishery and Related Occupations
44 Forestry Occupations includes forest conservation, production of forest products
45 Hunting, Trapping, and Related Occupations
46 Agricultural Service Occupations

PROCESSING OCCUPATIONS

50 Occupations in Processing of Metal includes electroplating, melting, pouring, casting, heat-treating, metal spraying
51 Ore Refining and Foundry Occupations includes mixing, separating, melting, roasting, crushing and grinding
52 Occupations in Processing of Food, Tobacco, and Related Products
53 Occupations in Processing of Paper and Related Materials
54 Occupations in Processing of Petroleum, Coal, Natural and Manufactured Gas, and Related Products includes mixing and blending, filtering, distilling, drying, grinding, reacting
55 Occupations in Processing of Chemicals, Plastics, Synthetics, Rubber, Paint, and Related Products
56 Occupations in Processing of Wood and Wood Products
57 Occupations in Processing of Stone, Clay, Glass, and Related Products
58 Occupations in Processing of Leather, Textiles, and Related Products includes shaping, blocking, separating, washing, ironing, mercerizing, singeing, felting

MACHINE TRADES OCCUPATIONS

60 Metal Machining Occupations includes machinists, toolmakers, gear machining, abrading, turning, milling, boring

61 Metalworking Occupations, N.E.C. includes hammer forging, press forging, sheet and bar rolling, extruding

62 Mechanics and Machinery Repairmen includes motorized vehicle
63 aircraft repairing, marine equipment, farm machinery repairing, engine, power transmission, and related mechanics, powerplant, ordnance

64 Paperworking Occupations includes paper cutting, folding, paper sewing, corrugating

65 Printing Occupations

66 Wood Machining Occupations includes cabinetmakers, patternmakers, sanding, turning, milling, sawing

67 Occupations in Machining Stone, Clay, Glass, and Related Materials

68 Textile Occupations

BENCH WORK OCCUPATIONS

70 Occupations in Fabrication, Assembly, and Repair of Metal Products, N.E.C. includes jewelry, silverware, tools and related products, engravers, etchers

71 Occupations in Fabrication and Repair of Scientific and Medical Apparatus, Photographic and Optical Good, Watches and Clocks, and Related Products includes fabrication and repair of instruments, optical instruments and lenses, surgical, medical, and dental, ophthalmic, photographic equipment, watches, clocks, engineering and scientific instruments

73 Occupations in Fabrication and Repair of Products Made from Assorted Materials includes musical instruments and parts, games and toys, sporting goods, ammunition, fireworks, explosives

75 Occupations in Fabrication and Repair of Plastics, Synthetics, Rubber, and Related Products includes tires, tubes, tire treads, rubber and plastic footwear, miscellaneous plastics products

77 Occupations in Fabrication and Repair of Sand, Stone, Clay, and Glass Products includes repair of jewelry, ornaments, stone cutters and carvers, repair of pottery, repair of asbestos

78 Occupations in Fabrication and Repair of Textile, Leather, and Related Products includes upholstering, hand sewers, menders, embroiderers, knitters, fur working occupations, repair of hats, caps, gloves, tailors and dressmakers, sewing machine operators, repair of footwear

STRUCTURAL WORK OCCUPATIONS

80 Occupations in Metal Fabricating, N.E.C. includes Riveters, tinsmiths, coppersmiths, sheet metal workers, boilermakers

81 Welders, Flame Cutters, and Related Occupations includes arc, gas, resistance, brazing, graze-welding, lead burning, flame cutters

82 Electrical Assembling, Installing, and Repairing Occupations includes generators, motors, accessories, transmission and distribution lines, wire communication, electronic communication, lighting equipment

84 Painting, Plastering, Waterproofing, Cementing, and Related Occupations includes construction and maintenance painters, paperhangers, plasterers, waterproofing, cement and concrete finishing

85 Excavating, Grading, Paving and Related Occupations includes concrete paving, asphalt paving

86 Construction Occupations, N.E.C. includes carpenters, brick masons, plumbers, asbestos, floor laying, glaziers, roofers

MISCELLANEOUS OCCUPATIONS

90 Motor Freight Occupations includes truck drivers

91 Transportation Occupations includes railroad, water, air, passenger transportation, pumping and pipeline, attendants and servicemen

92 Packaging and Materials Handling Occupations includes packaging hoisting, materials moving

93 Occupations in Extraction of Minerals includes boring, drilling, cutting, blasting, loading, crushing, screening

94 Occupations in Logging includes timber cutting, log inspecting, log sorting

95 Occupations in Production and Distribution of Utilities includes stationary engineers, occupations in electric light and power, gas, water, refuse and sewage

96 Amusement, Recreation, and Motion Picture Occupations includes, projectionists, models, radio and television production

97 Occupations in Graphic Art Work includes photoengraving, lithographers, bookbinders

99 Employment at Home including Homemaker

STRUCTURAL WORK OCCUPATIONS

80 Occupations in Metal Fabricating, N.E.C. includes Riveters, tinsmiths, coppersmiths, sheet metal workers, boilermakers

81 Welders, Flame Cutters, and Related Occupations includes arc, gas, resistance, brazing, graze-welding, lead burning, flame cutters

82 Electrical Assembling, Installing, and Repairing Occupations includes generators, motors, accessories, transmission and distribution lines, wire communication, electronic communication, lighting equipment

84 Painting, Plastering, Waterproofing, Cementing, and Related Occupations includes construction and maintenance painters, paperhangers, plasterers, waterproofing, cement and concrete finishing

85 Excavating, Grading, Paving and Related Occupations includes concrete paving, asphalt paving

86 Construction Occupations, N.E.C. includes carpenters, brick masons, plumbers, asbestos, floor laying, glaziers, roofers

MISCELLANEOUS OCCUPATIONS

90 Motor Freight Occupations includes truck drivers

91 Transportation Occupations includes railroad, water, air, passenger transportation, pumping and pipeline, attendants and servicemen

92 Packaging and Materials Handling Occupations includes packaging hoisting, materials moving

93 Occupations in Extraction of Minerals includes boring, drilling, cutting, blasting, loading, crushing, screening

94 Occupations in Logging includes timber cutting, log inspecting, log sorting

95 Occupations in Production and Distribution of Utilities includes stationary engineers, occupations in electric light and power, gas, water, refuse and sewage

96 Amusement, Recreation, and Motion Picture Occupations includes, projectionists, models, radio and television production

97 Occupations in Graphic Art Work includes photoengraving, lithographers, bookbinders

99 Employment at Home including Homemaker

APPENDIX E. OCCUPATIONS OF FATHERS AND MOTHERS OF WASHOE COUNTY STUDENTS, GRADES 7-12, REPORTED SPRING, 1967

(Occupational Code Numbers identified and described in Appendix D)

OCC. CODE	FATHER	MOTHER
1	264	9
2	60	2
4	27	6
5	10	6
7	196	285
9	229	260
10	5	26
11	94	2
12	30	3
13	18	13
14	36	20
15	63	16
16	303	57
18	518	43
19	160	37
20	22	954
21	99	395
22	28	17
23	98	91
25	361	90
26, 27, 28	345	183
30	13	336
31	300	479
32	32	75
33	32	72
34	268	480
35	15	16
36	25	38
37	295	18
38	155	18
40	16	0
41	67	2
43	7	1
44	39	1
45	2	0
46	51	1
50	15	4
51	8	1
52	12	10
53	1	0
54	14	0
55	15	9
56	29	1
57	11	1
58	4	2
60	56	0
61	22	1
62	365	3

OCC. CODE	FATHER	MOTHER	OCC. CODE	FATHER	MOTHER
63	58	2	82	230	28
64	4	2	84	144	2
65	46	7	85	114	0
66	37	0	86	548	0
67	11	0	90	305	1
68	3	3	91	229	6
70	14	5	92	32	11
71	26	8	93	23	0
73	8	0	94	18	1
75	10	3	95	133	8
77	9	0	96	16	18
78	16	26	97	7	3
80	52	1	99	738	3508
81	63	2			

APPENDIX F. VOCATIONAL-TECHNICAL SURVEY FOR BUSINESSES

CONFIDENTIAL

VOCATIONAL - TECHNICAL SURVEY

Research Coordinating Unit of the University of Nevada and the
Washoe County School District
Reno, Nevada

Name of Firm ______________________________

Address ______________________________ Phone ______________

Principal Product or Service ______________________________

Name of Person Completing Form ______________________________

Please Check the Appropriate Column and Fill in Numbers Where Requested

	NO. OF EMPLOYEES					COMPANY TRAINING PROGRAMS					EDUCATION REQUIREMENTS						
	1967 Employed		1970 Estimate		1966 Turnover in Percent	Apprenticeship or Lead In		On The Job		None	EDUCATION				Experience		Minimum Age
											Less than High School	High School Grad.	High School Plus	Specialized			
OCCUPATION	Male	Fem.	Male	Fem.		Need	Have	Need	Have						Yes	No	
	No.	No.	No.	No.	%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Years
Professional & Technical																	
Managerial & Administrative																	
Clerical																	
Bookkeeper																	
Cashier																	
Clerk Account																	
Clerk General																	
Office Machine Operator																	
Secretary																	
Stenographer																	
Telephone Operator																	
Teller																	
Typist																	
(Other)																	
4. Amusement & Entertainment																	
Entertainer																	
Musician																	
Radio, T-V Announcer & Related																	

OCCUPATION	NO. OF EMPLOYEES					COMPANY TRAINING PROGRAMS					EDUCATION REQUIREMENTS						
	1967 Employed		1970 Estimate		1966 Turnover in Percent	Apprenticeship or Lead In		On The Job		None	EDUCATION				Experience		Minimum Age
	Male	Fem.	Male	Fem.		Need	Have	Need	Have		Less than High School	High School Grad.	High School Plus	Specialized	Yes	No	
	No.	No.	No.	No.	%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Years
Skilled (Con't.)																	
Machinist																	
Mason																	
Mechanic																	
Painter, Decorator																	
Plumber																	
Tailor																	
Typesetter, Engraver																	
(Other)																	
Semi-Skilled																	
Assembler																	
Machine Operator																	
Truck Driver																	
(Other)																	
0. Unskilled or Miscellaneous																	
(Specify)																	

ist new job titles which you anticipate adding to your present employment.

NEW JOB TITLES

ANSWER TO THE FOLLOWING QUESTION IS NOT A COMMITMENT BUT INDICATES AN INTEREST IN
INING YOUTH

Would you be willing to hire part-time cooperative students, or to participate in a work-experience program?

YES ____
NO ____

(These are vocational programs in which students (usually seniors) spend at least one-half day in school and the rest of the day at work under proper supervision.)

If you answered YES: List JOB TITLES

Under 18	Over 18

---

at training, other then general education, would you consider advisable to help youth ualify for employment with your company?

SPECIFIC VOCATIONAL PREPARATION	JOB TITLE

---

o you give beginning workers preference in hiring if they have had specialized training? f so, indicate what training is preferred.

---

our comment on this survey, or on present public education, or any comment in general:

Would you like a summary of the final report of this study?

YES ____
NO ____

APPENDIX G. VOCATIONAL-TECHNICAL SURVEY FOR UNIONS

CONFIDENTIAL

VOCATIONAL - TECHNICAL SURVEY

Research Coordinating Unit of the University of Nevada and the
Washoe County School District
Reno, Nevada

Name of Union ______________________________

Address ______________________ Phone ______________

Name of Person Completing Form ______________________

Please Check the Appropriate Box and Fill in Numbers Where Requested

1. What is your union membership as of October 1, 1967? ☐

   Anticipated by October 1, 1970? ☐

2. Of this present membership, how many are now employed? ☐

3. In 1967 how many members were accepted --

   -- directly from high school? ☐

   -- following apprenticeship training? ☐

4. What educational level is required for a student to become eligible for membership in your union? ☐

5. Do you provide apprenticeship training for your members? YES ☐

   NO ☐

If YES: How many were trained in the past four years?

0-10	11-20	21-30	31-40	41+

By what method was this training done?

On The Job ☐

OJT & Related Instruction ☐

MDT - OJT ☐

MDT - OJT & Related Instruction ☐

(over)

6. Would your union participate in a pre-apprenticeship program with high schools?

YES ☐
NO ☐

7. Would you credit such training toward the length of your apprenticeship requirements?

YES ☐
NO ☐

If YES, please explain:

8. Have you suggestions for modification, improvements or additions to programs offered in Washoe County Public Schools which might benefit your union?

Academic Program?

Occupational, Vocational Programs?

Adult Education or MDT Programs?

Post High School Programs?

9. Have you any comment on this survey, on present public education, or in general?

10. Would your union like a summary of the final report of this study?

YES ☐
NO ☐